

S

331

Lir

1913-1914

MSD AUG 27 '80

Montana State Library



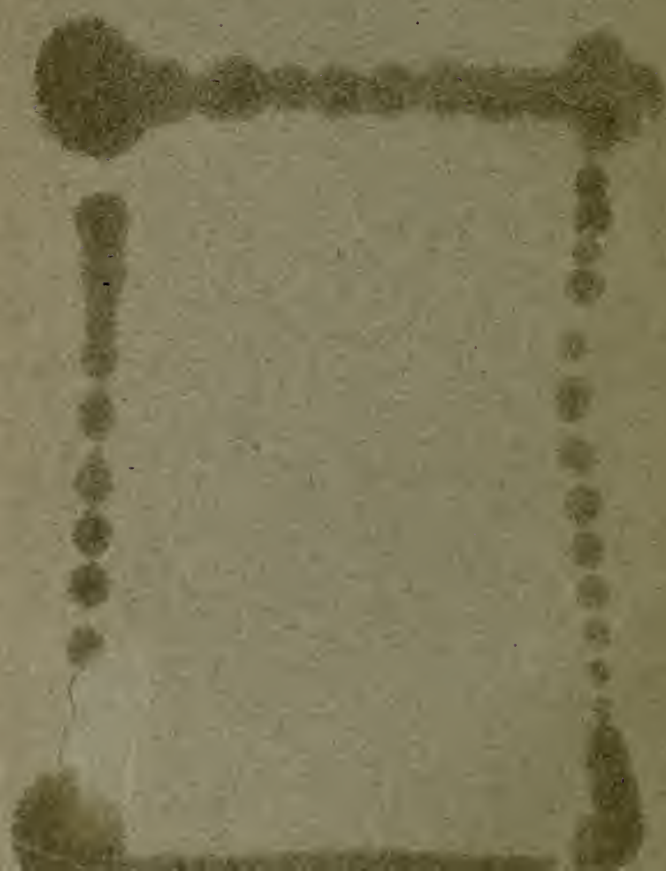
3 0864 1004 3919 2

MONTANA STATE LIBRARY EXTENSION COMMISSION  
SUL. DIST. 1 AND MIDDLESEX  
MESCULA MONTANA

STATE DOCUMENTS

MONTANA STATE LIBRARY  
930 East Lyndale Avenue  
Helena, Montana 59601

PLEASE RETURN



STATE OF MONTANA

---

First Biennial Report

OF THE

DEPARTMENT OF LABOR

AND INDUSTRY

---

1913-1914

---

W. J. SWINDLEHURST, Commissioner

INDEPENDENT PUBLISHING CO.  
HELENA, MONTANA





---

---

## LETTER OF TRANSMITTAL

---

---



# State of Montana

## Department of Labor and Industry

Helena, Montana, November 30, 1914.

His Excellency, Honorable S. V. Stewart,

Governor of Montana.

Sir: The Department of Labor and Industry was created by an Act of the Thirteenth Legislative Assembly of Montana, and I have the honor to transmit herewith, in compliance with the laws of this state, the first biennial report of the Department.

For more than twenty years a Bureau of Labor has been maintained in conjunction with another department of the state government. As originally created, it was a part of the Bureau of Agriculture, Labor and Industry, and was so conducted, with many gratifying results, until March 5, 1913.

For many years the old bureau was overburdened with an excess of work, and as a consequence the labor branch of the Department suffered, the scope of its usefulness being confined to a very limited sphere.

With the growth, activity and industrial development of the state, the need of a separate department devoted to the labor interests has been apparent and anticipated for many years. It was not, however, until the present governor had been installed in office that the matter was submitted to the legislative assembly, and a recommendation made for the segregation of the two departments which had hitherto been classed as one. While the governor and legislature contemplated and required many new, important and varied duties for the new department, it is probably of interest to the public to know that scarcely any additional expense has been incurred by the state under the new order and existing regime.

The Thirteenth Legislative Assembly, in abolishing the old bureau and creating in its stead two departments—one of Agriculture and Publicity, and the other of Labor and Industry—provided that the biennial report of this Department should also include a report of the State Boiler Inspector, the Coal Mine Inspector, and the Inspector of Mines. In compliance with the provisions of this Act, the report herewith submitted contains the reports of all four departments.

In discharging the duties and requirements of this office, extreme care has been taken to work along lines prescribed and specified in the statutes creating this Department. The field of labor prescribed by law is a broad one, however, and leaves a wide range for investigation. A summary of the work accomplished by the Department during the biennial period covered by this report includes a complete tabulation of statistics of the manufacturing industries of the state. This

compilation shows the kind of goods manufactured, date when established, capital invested, daily and yearly capacity, number of skilled and unskilled workmen employed, sex, wages, hours of labor, the days worked per month, months per year, and the amount and kind of power used. In connection with these statistics, the nationality of employes is given in all mines, mills, smelters, railroads and manufacturing industries in the state.

There is no opportunity for comparison with figures of this kind in former years, for the reason that this is the first attempt made in this state to gather and compile statistical information of the kind and character mentioned. This is true of practically all data gathered in this report. During the years that have elapsed since the creation of a Labor bureau, some statistics have been gathered and estimates published. In most instances, however, they were composed of estimates largely, and were quite incomplete. For this reason, they are not of value for comparative purposes.

One of the most important investigations made by the Department has been with reference to compiling statistics covering the cost of living. A uniform list of food prices was taken as a basis, and retail prices secured in sixty of the leading cities and towns of the state, January 1, 1914. Wholesale prices for the same date were collected in the five principal wholesale centers of the state. The retail price of coal and wood delivered is also given for March 1, 1914. In order to have this data as complete as possible, a further tabulation is given, showing retail prices for a corresponding list of meats and groceries, January 1, 1910 and 1914, as compared with January 1, 1900, in the five principal industrial centers of the state. This work has been carried on with much care, and it is hoped it will be of value and importance.

In addition to the above mentioned statistics and data, very many other valuable facts of a general character have been obtained and are published herewith. Much of the data and statistics appearing in this report were gathered by means of blanks sent out through the mail, and I feel that the work is quite as thorough and correct as it is possible to accomplish in the first attempt, by this method of procedure.

The Department has found the gathering of these statistics not an easy task. A great deal of correspondence is necessary, and in some instances the sending out of four and five repeated requests has failed to elicit a response. In many cases, answers to questions were given very imperfectly, which necessitated the blanks being sent back for correction, causing considerable delay and annoyance and much extra labor and expense. It is not, however, against the larger concerns of the state that we have complaint. All railroad companies, the Anaconda Copper Mining Company and other large concerns have been most obliging, and I wish at this time to testify to the courtesy shown us, and to the promptness with which they have responded to our requests.

It has been found quite impossible to get the different concerns of certain industries to report in uniform terms, the items of daily and yearly capacity. One firm will report in the quantity of products turned

out, while another will report these items in the value of their daily and yearly receipts in terms of dollars. Owing to this discrepancy it is a hard matter to arrive at the total daily and yearly capacity of all concerns in any one line of industry in the state.

In many states the use of blanks and the gathering of statistics by mail has been abandoned, and agents have been sent out instead. This arrangement has been found more advantageous. However, the present system must suffice for a time, or until the legislature feels warranted in making an appropriation sufficient to do the work otherwise.

Considerable apprehension was felt early in the winter of 1913-1914, over persistent rumors and newspaper reports published, that a large number of unemployed men were congregating in the larger industrial centers of the state. At the request of the governor, I made a thorough investigation of labor conditions in January, 1914, and the following report submitted to His Excellency, Governor S. V. Stewart, January 26, 1914, will indicate pretty thoroughly conditions as I found them to exist at that time:

Helena, Montana, January 26, 1914.

His Excellency,  
Honorable S. V. Stewart,  
Governor of Montana.

Dear Sir:

In compliance with the request contained in your favor of January 14, 1914, that I visit the industrial centers of the state for the purpose of looking into labor conditions, I beg to report that I have just completed an investigation, covering a period of practically ten days spent in the cities of Great Falls, Billings, Butte and Missoula, during which, in addition to making a thorough personal investigation in the cities mentioned, I endeavored to ascertain, by inquiry among large employers of labor, representatives of labor unions and officials of charitable and philanthropic organizations, the conditions prevailing not only in the cities actually visited, but also in adjacent territory, to the end that I might be able to make a comprehensive report covering all sections of the state.

In any survey of labor conditions at this time of year, it should be borne in mind that, not only in Montana, but in other northern latitudes there are many large avenues of employment which are necessarily closed during the winter months. Climatic conditions compel the cessation of activities in practically all outdoor construction work, a class of work which has been unusually heavy in Montana during the past few years. In addition the demand for farm labor in winter is much lighter than in the summer; and in fact this statement will hold true with many other lines of industry in which unskilled labor is largely employed. This condition is, of course, appreciated by the great body of workmen, and is, as far as possible, provided against. Reviewing present labor conditions in Montana in the light of these facts, it is my pleasure to report that the situation in this state not only fails to present any unusual or alarming features, but is, I can conservatively say, better than the average found at this time of the year. While there is plenty of labor, to meet the present demand, there is comparatively little idleness, and recent newspaper statements regarding the number of unemployed have been exaggerated.

The only place in the state where idle men are to be found in any great number is in the city of Butte, and this condition is apparently due to the activity of the copper mining industry in that locality, with its comparatively short hours and high wages, which has attracted a considerable number of unemployed from other states, especially from the copper mining district of Michigan, now suffering from a prolonged and bitter industrial strike.

Great Falls was the first city visited in my travels, and I was afforded every opportunity to investigate conditions at that point. I visited the Union headquarters of the Mill & Smeltermen's Union, and in the evening, attended a meeting of The Trades & Labor Assembly, where I was given courteous and considerate treatment.

I was informed that official notice had been received by the Mill & Smeltermen's Union that the concentrator at Great Falls would be closed the coming spring, and that a portion of the men employed in the plant would be laid off permanently the first of February. A corresponding number of men will be used in the concentrator at Anaconda, it being the intention of the Company to treat this character of ore at the latter place in the future. To off-set the laying off of these men, the capacity of the smelter at Great Falls has been increased, which will necessitate a larger force of employes.

A large force of men will be necessary in building the power plant at the lower falls, and this, with the reclamation projects and railroad construction work anticipated the coming season, make the prospect of labor in and about Great Falls appear better than for a number of years past.

Considerable new railroad building has been going on in the northern part of the state during the summer and fall of 1913 and practically all this class of work is now necessarily closed for the winter season. This has resulted in the enforced idleness of many men, and a large proportion of this class of laborers naturally drifts into the larger towns tributary and adjacent, adding to the number of unemployed.

Despite this condition, however, I was informed by reliable authorities at Great Falls that there were not to exceed 100 idle men in that city. In practically all of the larger cities of the state, the police department freely gives lodging and breakfast to unemployed men who are entirely without means of support. It is interesting to know that in the city of Great Falls there were only 68 requests for this kind of accommodation during the month of December—a number no higher than usual during the winter months, according to the Chief of Police.

The condition at Billings would appear to be as good, if not better than at any other point visited. The completion of the year's run of the Beet Sugar factory has left a few idle men in that city, but many of these have already found other employment, or have drifted to other localities. The Chief of Police informed me that there were fewer idle men in Billings this winter than for several years past. This assertion is borne out by my own observation, and from information given me from other and reliable sources.

In Missoula, I found upon making inquiries at police headquarters, and from talking with members of labor organizations that there were practically no idle men in that city. While the lack of snow has affected somewhat the logging industry in the western part of the state, I was informed that many of the camps were running at full capacity, about 5,000 men now being employed in the woods of the western part of the state. It would appear, however, that the operations of loggers in Lincoln, Flathead, Missoula, Ravalli and Sanders counties have been somewhat impeded this season by the lack of snow and cold weather for skidding and sledding purposes. This has resulted in some unemployed loggers here and there. These

men gather in the various towns of their respective localities, and add to the total number of the state's unemployed.

The recent snowfall which seems to have been quite general throughout the western part of the state, will give added impetus to the logging industry, and from now on, an unusually large number of men will doubtless find employment for the balance of the winter. Conditions in Anaconda are entirely normal. Approximately 3,000 men, a number slightly in excess of the average, are employed in the great Washoe smelter, while there are practically no unemployed in this city.

In Butte, while conditions are somewhat unusual, they are not at all alarming. I spent several days in that city, and made a very thorough canvass of the situation. I visited the Butte Free Employment office, the Salvation Army headquarters, and talked with many laboring men. When asked about the number of idle men in Butte at the present time, Mr. J. B. Savage of the Butte Free Employment office said he thought 2,000 would be a conservative estimate. In this connection, however, attention is invited to the fact that even in normal times, there are in Butte, according to Mr. Savage, an average of from 500 to 600 idle men, the inevitable floating population which centers in a large industrial community. A large proportion of the present force of idle men are miners from the Calumet and Hecla district of Michigan, and many of them are given rustling cards, and make the rounds daily of the mines daily in search of work. With the Butte mines working to full capacity, many of these men secure employment, either temporary or permanent, while those failing, leave for other localities, thus gradually lessening the number of unemployed. It is satisfactory to note that the situation has not been sufficiently bad as to warrant the establishment of soup houses, and in nearly all cases, the men have been able to provide for themselves. The Salvation Army has established relief stations throughout the city, and other charitable organizations have done their part, and assisted materially in furnishing help in extreme cases. Compared with the large number of men who find daily employment in our industries, the percentage of those now subject to enforced idleness is gratifyingly small. With approximately 16,000 men working for daily wages in Butte, even the 2,000 unemployed in this city is not alarming; while remembering that there are at least 2,500 wages workers in Great Falls, the idleness of less than 100 appears infinitesimal.

Summarizing, it may be said that labor conditions in the state during the year have been excellent. There has been a vast amount of construction and improvement work, both of a private and public nature in progress, and wage earners have been well employed. This applies to both skilled and unskilled, and for both classes, the volume of work seems to have been fairly up to the labor supply. As in other years, for a short time during the winter season, there has been a lull in activities, but this will be but for a short period of duration.

Respectfully submitted,

(Signed) W. J. SWINDLEHURST,

Commissioner of the Department of Labor and Industry.

In conclusion, I wish at this time to express my appreciation of the many acts of kindness and consideration shown me by your Excellency during my brief term of service.

Upon the organization of this Department, I appointed the Honorable W. R. Baker, chief clerk, and Mrs. Florence Gainan as stenog-

rapher. July 1, 1914, Mrs. Gainan, by a transfer, was succeeded by Miss Mary A. Stokes. It is fitting that I acknowledge the uniformly efficient service rendered by these assistants and commend them for their work.

I am also under obligations to many officials of the state government and to county officials in general throughout the state. The assembling of many of the facts and figures herewith presented would have been impossible without their co-operation and assistance.

Respectfully,

W. J. SWINDLEHURST,

Commissioner.

---

---

## LEGISLATION RECOMMENDED

---

---



# LEGISLATION RECOMMENDED

---

## Relating to Wage Payments.

During the few months this Department has been in existence, numerous complaints have been received from workmen throughout the state who have applied for assistance in the collection of wages due them. This applies to both mechanics and laborers, and it is not confined to any particular line of industry, nor to any one locality in the state, but is quite general, especially in construction work and where help is temporarily employed. Cases of this nature reported to this office are much more numerous than one would suppose. In view of the fact that there is no law on the statutes authorizing this department to intervene in disputes of this kind, the commissioner is powerless to render any material assistance, although in several cases an effort has been made to have the matter satisfactorily adjudicated, but in every instance without any tangible results. It frequently happens, where a case is reported and satisfactory results are not obtained, that the complainant goes away with a spirit of dissatisfaction and resentment against this Department. He cannot understand that the commissioner has no power to intervene in these matters, and he feels that he has not been given a fair deal and that discrimination against him has been practiced.

There is evident need of legislation of such character as will insure workmen leaving their employment, whether voluntarily or otherwise, prompt payment in full of whatever wages are due them. It is often the case that settlement is made many miles from where the men are employed, and a long distance must be covered by the employe to reach the point where payment is expected, only to find that his demands will not be met until a lapse of many days. This is more often the case where men have had trouble with a superintendent or foreman, and have suddenly quit the service because of some dissatisfaction with the character and conditions of their employment. It is the observation of the Department that railroad laborers employed on sections, and especially on construction work, are put to the greatest disappointment and inconvenience. Many instances might be cited, where, upon the dismissal of an employe, nothing but an identification check was given with no statement or evidence whatever of the number of days he had worked, the wages paid per day or the total wages due him. Time checks issued in this way for service rendered should be of such a character that they could be made negotiable without delay. An instance of this kind was the case of an employe of one of the railroads of the state who was taken sick and confined to a Helena hospital for a time, anxiously waiting for several weeks for his check, which had been sent through the mistake or stupidity of some office clerk of the company to the head offices at St. Paul. During part of this time the man was penniless and was forced to subsist on the charity of others, although a substantial check was due him from the railroad company which he was unable to collect.

A man selling his brawn and muscle for a stipulated price in order to secure the necessities for existence ought not to be subjected to these inconveniences. The wage earners of the state should have every possible protection. It is therefore urged that proper provision be made for an immediate payment following dismissal of an employe, or in a case where his term of service is suddenly terminated through his own volition, or otherwise. It is recommended that a law be passed for an adequate regulation of the payment of wages.

### Free Employment Offices.

The State of Montana does not maintain free employment bureaus, but the statute provides that any incorporated town may establish free public employment offices, to be conducted on the most improved plan, and that it shall be lawful to pay for the maintenance of the same out of the revenue of the city.

In view of the fact that the establishment of bureaus of this kind is not compulsory under the law, and realizing that municipalities as a rule are reluctant to initiate any new department that would result in an additional expense to the taxpayers, this Department early forwarded a communication to the mayor and city council of all the important cities and towns in Montana, suggesting that each city establish a free employment office to be located at the city hall under the control and supervision of the chief of police, and looked after by the police department.

It had been hoped this plan would prove effective, as it would not require the hiring of extra help or result in an additional expense to the municipalities. Although a renewal of this recommendation was made to the new administrations after the spring elections had been held, the department regrets to report that only two cities, Livingston and Bozeman, were sufficiently impressed with the plan to give it a trial, which was done in both instances at the earliest possible date. Both the Livingston and Bozeman bureaus have a free service, and it is gratifying to announce that both have been conducted effectively the past two seasons. In a similar manner a bureau has been maintained by the city of Missoula for the past three years under the police judge of that city. In each case the bureaus have been of advantage to all classes seeking employment, as well as of assistance to people looking for help, by bringing them in touch with such help as was available without unnecessary delay. It has done away, by competition, with several fee employment agents, most of whom are without conscience, and resort to all kinds of schemes to rob and plunder those seeking employment. The police department through this means has been able to ascertain at all times those who are honestly seeking employment and those who are not, and it has been found of material advantage in helping them to drive out the undesirable characters that infest every community.

It is recommended that a law be passed, compelling towns of a certain class to maintain bureaus of this kind, which can be done

with a very little trouble and scarcely any additional expense. In addition, it is recommended that all private employment agencies which charge fees for their service be either abolished or placed under the strict regulation of some state authority.

### Law Compelling Reports.

The law creating this Department provides that the commissioner of labor and industry shall collect, assort, arrange, systematize and present in an annual report to the governor statistical details relating to all departments of labor and industry in the state. In order to insure a more perfect collection of the statistical information contemplated by the legislature, it is recommended that the statutes be amended, giving authority to the commissioner to require from all county officials in the state prompt and full answers to all special and general questions propounded by this and other state departments in their search for information, and that no person shall receive any compensation for answering such questions. While there is generally no disposition on the part of county officials to refuse the information requested, there is frequently indifference shown and much negligence apparent.

### Amendment to Child Labor Law.

An amendment is needed to the present child labor laws of the state so far as they relate to the child actor. From a decision obtained from Attorney General D. M. Kelly, July 21, 1913, as to whether a child under sixteen years of age can in all cases be prevented from appearing on the stage of a reputable theater or otherwise, it would appear that the present law is not altogether plain and is somewhat ambiguous on the subject. There is evidently too much latitude conveyed in the present reading of the statute, and it is therefore apparent that the Department will never be able to secure a strict observance of the present laws, as far as they relate to the reputable theater and shows of a high moral character. It is the judgment of this Department that no child under sixteen years of age should be allowed to appear in a show or circus, and it is recommended that the law be amended to specifically prohibit the employment of children in any kind of theater, circus or show.

### Occupational Disease Law.

From observation and from consultation with medical men throughout the state, the commissioner has arrived at the conclusion that the time has come when an occupational disease law should be passed by the legislature of this state. Tuberculosis, or miner's consumption, as it is generally called, has reached alarming proportions in the city of Butte, and all medical experts claim that the propagation of this deadly disease is in a large measure due to unsanitary and unhygienic conditions. Those who work in the smelters of the state are obliged to inhale noxious gases which tend to weaken their vitality, causing much suf-

fering and often resulting in a painful death. Industrial diseases in this state are much more prevalent than is commonly believed to be the case. Some effort should be made to correct this condition, and all cases traceable to the occupation of the patient should be reported by the physician in charge to the State Board of Health.

It is recommended that the state provide for a compilation of vital statistics, with particular reference to occupational diseases, and the Health Department be authorized to proceed with this important work. Such compilation would be of inestimable value to this Department, the Board of Health and the Board of Education. It is earnestly hoped that the next legislative assembly will give consideration to this matter.

### Workmen's Compensation.

Attention is particularly directed to the fact that this state has failed to provide an equitable, expeditious and economical method of settling claims arising out of industrial accidents. This is to be regretted in view of its importance and the interest and consideration given this subject by so many other state governments. In Montana, perhaps more than in other states, there is much industrial development, and as a consequence, many accidents of a serious and fatal nature occur every year. Only a small percentage of the victims of these are receiving adequate and proportionate compensation for the loss sustained. It is generally conceded that a compensation law of some kind should be enacted, the present common law doctrine under which we are operating being admittedly wrong and inefficient in securing prompt and adequate protection and relief. With a well devised plan of compensation, the loss sustained through industrial accidents will be met without the heavy toll of lawyers' fees and court costs attending the present damage suit system. The new system is generally admitted to conserve economy. Upon the forethought and foreknowledge with which the law is constructed, depend its usefulness and efficiency. It is sincerely hoped that a compensation act will be passed and that the measure will be dictated by a prudent regard for all classes and interests.

No attempt has been made by this Department to draft a law, there being such a wide divergence of opinion as to what kind of measure should be passed. There is hardly any question as to the desirability of the passage of a compensation law, the only point open to debate being the kind and type to be adopted. The Department believes the time is opportune for the passage of this character of reform legislation, and sincerely recommends that the legislature give it the serious and thoughtful consideration which is its due.

Notwithstanding that the workmen's compensation act initiated by the People's Power League was defeated at the last general election, there is nevertheless a growing sentiment for the enactment of suitable legislation covering the liability of employers for industrial accidents, and this question must continue to remain in the forefront of state affairs until it is settled by the enactment of an effective law on this subject.

In states where there are workmen's compensation acts, the principle of workmen's compensation is well established, and the benefits of such legislation are fully conceded. In no country has a law of this kind once enacted, ever been repealed. It has in the main given universal satisfaction and has helped to reduce the number of industrial accidents in all kinds of occupations.

Legislation for compensation received its first real start in Montana in the appointment by Governor Norris in 1910 of a commission of eight men to prepare employers' liability and workmen's compensation acts to present to the legislature. This commission recommended two bills—one providing for automatic compensation in extra hazardous employments, and an accompanying bill limiting the amounts receivable if workmen elect to sue instead of accepting the proposed benefits. Neither of these bills became a law. Several different bills were introduced in the Thirteenth legislative session, but none of them passed or became a law. This led to the initiative measure proposed by the People's Power League, which failed to meet with the approval of the majority of the qualified electors of the state at the last general election held November 3, 1914. A number of things conspired to defeat this compensation act. In the first place, the larger corporations of the state were bitterly opposed to its passage, for the reason, as they claimed, that it was too drastic in its provisions, and that it would retard the growth and development of industrial plants and enterprises. This devolved into a state-wide campaign which was effective in securing the defeat of the measure.

Although railroad employees were exempt under the proposed act because they did not want to come under the law, preferring to operate under the present federal law, or the federal workmen's compensation law which it is expected will soon be enacted, they voted strongly against it, evidently believing it would only be a short time before they would also be included under the state law.

The farmers of the state apparently opposed the bill, although no particular reason for their attitude can be explained. Doubtless many others were not fully acquainted and familiar with the proposed law and voted against it for this reason.

Since agitation was commenced in this state for a compensation act, legislation in the United States along this line has been extremely rapid and progressive. It does not require much calculation to foresee that a workmen's compensation act of some kind must be adopted in this state before very long.

An effective compensation act must furnish the employe prompt indemnity for injury received while actually engaged at his occupation, at a fixed scale of damages, based on the kind and extent of his injury and proportionate to the amount of wages earned. This system would hasten the recovery of damages and eliminate long drawn out litigation. Lawyers would no longer be needed to secure for the injured workmen the compensation provided. Should the accident prove fatal, the employe's family would get the full amount of damages without recourse to the courts and unnecessary costs and expensive damage suits.

Doubtless it will be impossible to secure the passage of an act without some imperfections and deficiencies. Many, if not all, of the acts passed by other states were admitted imperfect in the beginning, but by application and experience they are gradually being improved and remedied. Each of the states has been working out its own particular problems, and Montana will have to do the same. It is important that the best law possible first be obtained, and then the proper remedies, amendments and improvements can be secured after the law has been given a fair and impartial trial.

---

---

**STRIKES AND LABOR  
DISTURBANCES**

---

---



## Strikes and Labor Disturbances

While there have been a number of small strikes in different localities during the years 1913 and 1914, I am pleased to report that with the exception of the Butte difficulty, labor disturbances have not interfered with business generally throughout the state during the past two years.

### I. W. W. Active.

Early in the year 1913, it was rumored that the Industrial Workers of the World had gone out in the western part of the state to enforce a nine-hour working day in the lumber woods, especially in Missoula county. I made inquiries at Missoula with reference to this strike and interviewed a number of men employed in the lumber woods, who informed me that the strike was a thing of reality, although the lumbering and logging companies professed to know nothing about it. From all I could learn, it was not considered serious in Missoula, and did not reach alarming proportions.

### Bozeman Brewers' Strike.

The union employes of the Bozeman brewery, numbering seven men, struck in June, 1913, demanding an increase in wages. The men remained out several days. When the management granted all the men asked for in the way of wage increase, the men involved returned to work the following day.

### Electrical Workers' Strike.

The strike of the electrical workers in Butte in August, 1913, threatened for a time to tie up the public utilities companies in that city and close the mines for an indefinite period. Happily, however, the intervention of the Silver Bow Trades and Labor Assembly, the Building Trades Council and President M. M. Donoghue, of the Montana Federation of Labor, resulted in arranging a basis of arbitration of the linemen's demands and the linemen returned to work before the public was inconvenienced or the public service companies crippled to any appreciable extent. This strike was called off, the linemen withdrawing their demands, the companies retaining all the old employes without discrimination.

### Jewelers' Strike in Butte.

The watchmakers, jewelers, engravers and opticians of Butte struck for an increase in wages in September, 1913. This demand was resisted for some time by the employing jewelers, but owing to the rush of work incident to the approach of the holiday season, the matter was terminated by an agreement on the part of the boss jewelers to allow their employes to come under the jurisdiction of the clerks' union and to grant an increase in wages of \$1.00 per day.

### Teamsters' Walkout in Helena.

A conference between committees from the Helena Trades and Labor Assembly and the Helena Merchants' Delivery Association terminated in a walkout, lasting one day, of 12 union teamsters who refused to work with two men not affiliated with their organization. The trouble occurred in December, 1913, and was amicably settled by the agreement of the two men to affiliate with the teamsters union, the 12 men returned to work as usual the next morning.

### Riot of the Butte Newsboys.

The Butte newsboys, who had been receiving three newspapers for five cents, demanded five, and struck to enforce their demands, January 5, 1914. A riot occurred on that date. The boys, incited by the Industrial Workers of the World, armed themselves with clubs and prevented the newspapers from reaching the street, holding up residence deliveries also. A miner who attempted to defy a mob of the boys in front of an afternoon newspaper office was beaten until nearly unconscious, and a carrier whom the boys caught delivering papers had three ribs broken. Another carrier's nose was fractured, and the papers of both confiscated and destroyed. The interference of a squad of police saved them from worse injuries, and the boys were dispersed, going back to work without further difficulty.

### The Butte Bakers' Strike.

The union bakers of Butte declared a strike January 31, 1914, demanding an increase of wages and certain modifications in the rules under which the men were employed. A number of firms which had previously conceded the union's demands were not affected by the strike. Quite a number of men were involved in this strike, which lasted several weeks. Finally a compromise between the boss bakers and the men was agreed on, time and a half being allowed for over time, and a fifty per cent increase demanded by the union was conceded. The union was also given supervision and regulation of the apprentice system.

### Carpenters Make Demands.

Demands were made by the Carpenters' Union of Helena, for an increase from \$5 to \$6 per day in April, 1914. An offer of \$5.50 by the master carpenters was rejected by the union, which decided to hold out for \$6 per day. After several conferences to reach the agreement the carpenters decided to return to work at the old scale, and work throughout the city was resumed on this basis.

### Plumbers' Charter Suspended.

Owing to the differences which existed in June, 1914, between the Arnold Plumbing Company and Local No. 41, International Journeymen Plumbers, Steam and Gas Fitters, the charter of the latter organization was revoked by a national representative of the union, who was sent to

Butte to investigate the situation. Mr. Arnold, of the Arnold Plumbing Company, acting under instructions of the International Union, reinstated at work a man who had been pulled off by the local union. The local men, to the number of fourteen, walked out. Mr. Arnold appealed to the headquarters of the International Union, and a representative was sent to investigate and withdrew the charter of the local. The trouble is said to be a result of the efforts of the local to keep new men from securing employment in Butte, regardless of the fact that they are members in good standing of the International organization. The difficulty was later adjusted, the men returning to work with the authorization of the International Union.

### Electricians on the Milwaukee Strike.

A question involving the right of the local International Brotherhood of Electrical Workers of Butte, co-operating with the Anaconda local, to exercise supervision over the men employed by the Milwaukee Railway Company in the electrification of a stretch of their road between Three Forks and Deer Lodge, resulted in a tie-up of the work contemplated by that company, for practically the entire past summer. The controversy originated in the setting of poles, the union claiming the company had always conceded this to be a part of the work to be done by members of their organization. In this controversy the electrical workers did not ask entire jurisdiction, but demanded that a majority of the men employed in this class of work should be union electricians. As a result of this trouble the electrification work between Three Forks and Deer Lodge was suspended, and the company declared unfair in this territory, where the Butte and Anaconda locals claim jurisdiction. Quite a force of men was brought into the state from Seattle during July, to take the place of the strikers, but they refused to go to work when they found a strike was in progress, demanding transportation back to Seattle. No change occurred in the situation during the entire summer, and it was not until November 1 that the difficulty was finally adjusted satisfactorily and the work resumed. Settlement was made with a new firm securing a contract for the work and was accomplished by a referendum vote of the men.

Under the terms of the agreement electricians are to receive \$4.25 a day, and laborers \$3 per day, the company conceding a majority of men engaged in the setting of poles to be members of the organization. A charge of \$1 per day each will be made for board, the company agreeing to board all men employed.

### Trouble in Missoula and Elsewhere.

Several labor difficulties have occurred in Missoula during the year 1914. A boycott inaugurated by the labor organizations of that city in the spring of 1912 against the Polley's Lumber Company had not been lifted late in the summer. Other firms were placed on the unfair list, including the Missoula Mercantile Company, for failure to recognize the Clerks' Union. These difficulties had not been adjudicated, according to recent reports from Missoula.

Similar difficulties were experienced in Great Falls, Lewistown and Billings, but no serious strikes have occurred in any of these localities.

Other small strikes occurred during the year, but none of them were reported to this office. In no case were my services requested, and in no instance were they tendered. The present law gives me no authority to act, and I was convinced that any advice I could offer would go unheeded.

### Revolt of the Butte Miners.

The year 1914 opened auspiciously for Montana. The year previous had been a comparatively prosperous one for the state, with a good demand for all classes of labor. An even better year was expected for 1914, as every indication pointed to a season of uninterrupted industrial activity, improvement and development. Here and there labor difficulty arose of a minor nature, and while more or less serious in their respective localities, they were not effective in disturbing business generally or in any particular locality of the state. Nothing serious of a disturbing nature occurred until trouble arose in the Butte mining district, June 13, 1914.

This disturbance was entirely unexpected by the public, and seems to have been of a peculiar and unusual nature. The Butte mines had been working for years without any serious labor difficulties. The Butte miner was comparatively well paid, with conditions better than those of the average metalliferous miner of this or any other country. In 1900 the eight-hour day had been secured in the state through legislative enactment, covering every phase of underground workings, and in May, 1912, the Anaconda Copper Mining Company, the principal producer of the Butte district, had conceded a sliding wage scale to the miner, based on the average price of copper for each month. This contract was to run three years, and provided that when copper was 17 cents per pound or more, the miners were to receive a wage of \$4 per day; when copper averaged under 17 cents and above 15 cents, the rate of wages paid was \$3.75 per day, and when copper was below 15 cents, wages automatically dropped to \$3.50 per day, the lowest wages paid. This contract had been in vogue two years previous to the Butte outbreak, and had been accepted by the miners' organization as fair and reasonable, and was apparently satisfactory to the men.

### The Western Federation of Miners.

Butte Miners' Union No. 1 was affiliated with the Western Federation of Miners, and has always been considered a bulwark of strength to that organization. It was in Butte on May 15, 1893, that the Western Federation of Miners came into existence. It is not the policy of the Federation to announce how many members it has enrolled, and it is therefore difficult to arrive at the exact membership of the organization. It is composed of mill-men, smelter-men and engineers, as well as miners. From a small beginning of 14 unions which took out charters

when the Federation was formed in 1893, the organization has grown to a membership of approximately 40,000, in good standing, and something like 200 locals.

The Western Federation of Miners has been involved in numerous important strikes, beginning with the strike in the Coeur d'Alenes in Idaho in 1892-93. Until 1901 the headquarters of the Western Federation of Miners were located in Butte, Montana, but in that year they were changed to Denver, Colorado, where they are still located.

### Causes of the Butte Revolt.

The Butte difficulty was not in the nature of a strike or lock-out. It did not originate from any direct grievance against the mining companies of that district, but was the result of factional differences in the Miners' Union alone. It was for the most part a revolt of the Butte miners against the officials of the local union and the Western Federation of Miners. The meetings of the Butte Miners' Union are held in secret, only those affiliated and in good standing being allowed to attend. The public knew little if anything about what differences had existed prior to the first disturbance. The Butte Miners' Union No. 1 had always been considered a safe and conservative organization. On numerous occasions it had been the means of preventing serious strikes inaugurated by other labor organizations in Butte by refusing its support, co-operation and assistance.

On June 12, 1914, the day before the annual celebration of the Butte miners, a large number of miners employed at the Speculator mine refused to permit inspection of their union cards by a committee of the Miners' Union. Rather than show cards, some 400 of the miners quit work and marched down town. This demonstration, however, was not considered serious by the general public, and in view of the former policy and well known conservatism of the union, it was like a bolt out of a clear sky when a crowd of several hundred miners and sympathizers attacked the parade of the Butte Miners' Union on Miners' Union Day in Butte, June 13, 1914.

It is now apparent that a great deal of dissatisfaction has existed for years in the administration of affairs of the Butte Miners' Union. Undoubtedly the men had a number of serious and just grievances. For months prior to June 13, 1914, complaints had been common of inactivity on the part of the union officials. It was also claimed that they were dominated entirely by the influence of the mining companies. Cases of misuse of the referendum vote were not infrequent, especially in matters where the men were vitally interested. Not long before the revolt against the Federation, officials had refused to accept a motion for a referendum on discontinuance of the Michigan strike benefit. The rustling card system was another bone of contention, a majority of the men having been in favor of its abolishment by a referendum vote. Grafting was also charged, but not proved, and there was general dissatisfaction with the manner in which the affairs of the union had been conducted for a number of years. It was charged by the revoltors that if a member of the union protested, he was forcibly ejected

from the hall. To add to the dissatisfaction, the I. W. W. had invaded Butte. The socialist party had also become very active, having twice elected a socialist city administration by a substantial vote. Under this regime the city of Butte offered an inviting field to the I. W. W., the socialist and the extreme labor agitator. Peculiar ideas politically were propounded nightly on street corners, and the city rapidly filled with a dangerous element and an undesirable class of men.

It is only fair to the miner to say that only a small percentage of those working underground was of this class and character of men. The new element in Butte, however, became very active and aggressive in its efforts to control union bodies, particularly the Miners' Union, and was primarily the cause of much of the disturbance and lawlessness which later resulted in the calling out of troops.

### The First Disturbance.

On Miners' Union Day in Butte, June 13, 1914, a parade of several hundred miners, members of the Butte Miners' Union No. 1, Western Federation of Miners, was attacked and a riot ensued. The attacking parties were also members of the same organization, considerably augmented by outsiders and sympathizers with the I. W. W. movement. A number of men in the parade were badly beaten, and a few seriously injured. Some few offered resistance, but were finally overcome, and all broke and fled. Other disorders followed on the same day, lasting approximately from ten o'clock in the morning until nearly midnight.

The rioters, after breaking up the parade, marched in a body to the Miners' Union Hall, 319 North Main street, where considerable damage was done to the building, and practically all of the furniture, fixtures and other property of the union destroyed. The large safe owned by the Federation was placed on a dray provided for that purpose, and taken to the flat near the Centennial Brewery and destroyed with dynamite. The rioters appropriated \$1,600, which the safe was said to contain, as well as valuable papers, including mortgages, promissory notes and other evidences of indebtedness to the union. Other property was also taken and never returned. The piano, adding machine, typewriter and cash register were broken, and all the books and records of the union stolen or destroyed.

This riot occurred in broad daylight, in the presence of the sheriff and numerous police officers of the city of Butte, without any effort or resistance being offered to prevent the destruction of property or to quell the disturbance. Following this disturbance the men became orderly and quiet and work was resumed as usual the same night and the following day.

During this outbreak, citizens of Butte appealed to Governor Stewart for state troops. The governor went to Butte in person to investigate the situation, and while he found many of the citizens of that city apprehensive of further trouble, he was informed by the municipal and county authorities that peace and order would be maintained, and that the civil authorities were fully able to furnish protection to citizens and

to safeguard property interests. The governor, apprehending further trouble, and as a precautionary measure, communicated with President Wilson and Senators Walsh and Meyers, to ascertain if federal troops could be secured in case another outbreak occurred. The request was based on the fact that the state troops were few in number and might be found inadequate to cope with the situation. He thought it advisable to have troops sent to some abandoned army post in the state, where they would be available on short notice in case the situation became sufficiently serious to warrant federal intervention.

The President declined the governor's request for the time being or until the municipal and county authorities had exhausted their resources and the state had made an attempt to handle the situation.

In the meantime the seceders from the Federation had organized a new union, which they styled the Butte Mine Workers' Union, and several thousand men were promptly enrolled. On the surface, conditions appeared apparently normal, but there was nevertheless a strong undercurrent or restlessness among the men, and a bitter feeling existed against the officials of the old union and the Western Federation of Miners. No one was molested, however, and the men continued working as usual, none of the mining companies discriminating against members of either organization.

### The Second Outbreak.

It was at this critical stage of the situation that Charles H. Moyer, President of the Western Federation of Miners, arrived in Butte and attempted to effect a settlement of the differences, and incidentally to induce the men to acknowledge allegiance to the Western Federation of Miners and Butte Miners' Union No. 1. The presence of Mr. Moyer in Butte greatly exasperated the members of the new union. It appeared to them to be his deliberate purpose to destroy their new organization, and threats were openly made that he would be forced to leave the camp. Threats were also made against the officials of the Butte Miners' Union, all of whom were accused of grafting, dishonesty and unfairness toward the men.

An attempt was made to hold a meeting at the Miners' Union Hall on the evening of June 23, exactly ten days after the first disturbance occurred. Mr. Moyer announced that he would outline at the meeting a plan for the adjudication of the miners' differences. Only members of the Western Federation of Miners were allowed to attend this meeting, and officials of the union were posted at the door to examine cards and see that the order was enforced. Some 200 members were admitted.

During the proceedings of this meeting, and while Mr. Moyer was outlining his plan for uniting the two factions, several hundred members of the new union and their sympathizers had congregated in front of the union hall. It has never been clear who were the first aggressors in the riot which followed. Eggs and stones were hurled at the windows of the upper story, where the meeting was in progress. Some one fired a shot, and pandemonium broke loose. A miner named Bruno, ascending the stairway with his Federation card in his hand, was shot

in the head, presumably from the inside of the building. Several others were wounded, and Ernest J. Noy, an employe of the Great Northern Railway, was shot while passing the building on the opposite side of the street, and was instantly killed. Firing became general, both from the building and the street.

While a portion of the men guarded the entrances so that the occupants of the building could not escape, a strong deputation of miners marched to the West Stewart Mine, where the hoisting engineer was compelled at the point of a gun to lower the men into the mine, where a large quantity of dynamite was stored. The destruction of the union building with dynamite followed.

It seems to have been the deliberate purpose of the men to destroy the building before the occupants could escape. Anticipating an attack with dynamite, the men imprisoned in the building succeeded in getting out by means of a fire-escape in the rear. This was accomplished during the first outbreak and while the men left to guard the rear of the building had rushed to assist those in front.

Mr. Moyer and other officials of the Federation were kept in hiding for a few hours, and contrived to make their escape from Butte by automobile at 5 A. M. the following morning. They appeared in Helena the next day, to consult with Governor Stewart and demand protection.

Twenty-six charges of dynamite were placed against the building, and the structure was practically destroyed. During this disturbance several prominent citizens of Butte telephoned the governor, calling upon him to declare martial law and send in the state troops. The governor appealed to Mayor Duncan of Butte and Sheriff Driscoll of Silver Bow County, to make an attempt to protect life and property, and if necessary to summon to their aid a sufficient number of law-abiding citizens to enforce the law. He was again notified that the civil authorities would be able to cope with the situation and restore peace and order without the aid of the military power of the state.

Meanwhile a quiet but systematic effort was being made to get every mine worker in the district to join the new union. Men were warned either to join it at once or get out of town. They were told that they would not be allowed to work in Butte without a Butte Mine Workers' Union card. Acts of intimidation and lawlessness were frequent. A number of miners became frightened and left Butte. Complaints were frequent of men being waylaid and beaten. Quite a colony of proscribed men congregated in Helena and remained several weeks, afraid to return to Butte.

Early in July a number of officials of international craft unions visited Butte to investigate the local labor situation, but they were unable to accomplish anything and did not attempt to interfere.

When the first Butte disturbance occurred, the Commissioner of Labor was out of the state, having been in attendance at the annual convention of the Association of Bureaus of Labor, Factory Inspectors and Industrial Commissioners, held June 8 to 12, at Nashville, Tennessee. Immediately upon his return to Helena, he was despatched by the gov-

ernor to Butte, to investigate the issues involved and to tender the good offices of the Department in an effort to adjudicate the differences between the warring factions in the copper district. The commissioner arrived in Butte on the evening of the 23rd of June, during a period of great excitement caused by the presence of President Moyer, of the Western Federation of Miners. Before anything could be done or a conference held with either faction, the second riot occurred, which resulted in the loss of one life, the wounding of several people and the destruction of the Federation building with dynamite. Other steps were taken by the governor, and other influences were brought to bear to settle the difficulty peacefully, but without avail.

### Mayor of Butte Attacked.

On the afternoon of July 3, Erick Lantala, a Finnish miner and a prominent member of the Finnish socialist local, appeared at the city hall and requested an audience with Mayor Lewis J. Duncan. Lantala and other Finns had previously requested the Mayor to deport Frank Altonen, special correspondent for the "Tyomies," a Finnish paper published at Hancock, Michigan, which was championing the cause of the Western Federation of Miners. Apparently grieved at the Mayor's refusal to comply with his request, he drew a knife and attacked the mayor in his office after the latter had again refused to have Altonen forcibly run out of town. The mayor was stabbed three times, serious but not fatal wounds being inflicted in the scuffle which followed, and Lantala was shot through the abdomen by the mayor and died a few days later. The assailant was finally overpowered by Alderman Davis and Building Inspector Van Hern. The mayor claimed that he shot only in self defense, and a coroner's jury brought in a verdict to this effect.

### New Union Asserts Jurisdiction.

Following the declaration of war in Europe many of the mines were closed owing to a lack of demand for copper. The Anaconda company announced that as many miners as possible would be kept working, and that preference would be given the married men. By the middle of August, probably half the mines in the Butte district were closed. As a result, Butte was filled with idle men. As a natural and inevitable consequence, the feeling of unrest became more intense. Lawlessness and intimidation continued, and the local authorities could not or apparently would not attempt to maintain order.

August 26, the Butte Mine Workers' Union started a movement to assert its jurisdiction in the Butte district. All kinds of rumors were current. A committee of the new union visited the Anaconda mine and notified the miners employed there that from and after that date they must all wear buttons of the new organization or quit working in the mines. At a meeting of the Union Sunday, August 24, 40 volunteers of the new union were appointed a committee to wait on the miners of the district and see that all joined the new union. Resolutions were passed, asserting their claims and declaring that all miners,

as well as the Butte Workingmen's Union, must in future wear the new organization's buttons and show cards of membership. All Butte unions were notified that they must recognize the new union at once. The jurisdiction committee visited a number of mines and inspected cards before the men were allowed to work. At the Anaconda mine, 37 miners without buttons or cards of the new union were forcibly taken in hand and given an open-air trial on a vacant lot at Wyoming and Porphyry streets.

"Muckie" McDonald, the President of the new union, presided at this hearing of the men and rendered judgment. At this meeting three miners were declared enemies of the Mine Workers' Union and were escorted by several hundred men to the outskirts of town and warned to leave the camp. The other 34 were told to make application for membership in the new union, to which all agreed. Men having Western Federation of Miners' cards were made to tear them up. Other mines were visited, and the same procedure followed.

The attitude of the new organization toward its men and toward the employing companies was shown in the following rules and regulations, copies of which were posted at all of the mines:

#### "MINE WORKERS, ATTENTION!"

"Pursuant to an action taken at a regular meeting of the Butte Mine Worker's Union, Aug. 17, 1914, wherein your executive committee was empowered to wait upon the different heads of the mining companies and lay before them the matter of abolishing the system of blasting at dinner hour, and dampening and laying of the dust, the ventilation of blind workings and hot boxes by means of fans;

"This is to notify you that your union has made arrangements with the companies whereby these conditions will be corrected at the earliest possible moment. And you are hereby notified that after this date there will be no more blasting at dinner hour or during the shift, and any infraction of this order must be promptly reported to the union. A water system will be installed as quickly as possible, and it will be your duty to report to the union any places which you consider wholly unfit to work in, and the union will see to it that such condition is corrected. The workers are admonished in the interest of health, sanitation and common decency, to use toilet tanks wherever provided, and where there are none to report that fact immediately to the union.

"Do not throw foodstuffs around levels or in stopes or workings, as decaying food in a mine is a dangerous source of disease infection, and careless workers doing so should be promptly reported to the grievance committee or your union. Report to your grievance committee on the job any grievance which may arise, and in case you are unable to settle it, fail not to bring it before your union. Treat the boss in the mine upon that reciprocal basis and relation upon which should most justly rest the traffic between individuals of all mankind, and upon no other. Treat him as every man who is a man should treat every other man. Stand up in full dignity of real manhood, and do not, under any

circumstances, tolerate in the future as in the past, from any boss any bulldozing, brow-beating bamboozeling or abuse of any kind, and if you receive any such treatment, do not be slow in letting it be known to the grievance committee or the union. If you feel you have been unjustly discharged without warrant or sufficient cause, do not be slow in letting it be known. And let us all work, pull and co-operate to build a union for, by and in the interest of all workers.

(Signed) "GEO. R. TOMPKINS,  
"JOS. SHANNON,  
"MIKE SULLIVAN,  
"WM. STODDARD,  
"Executive Committee."

Richard O'Brien was found working at the St. Lawrence mine without a Mine Workers' card. He admitted belonging to the Western Federation of Miners, and refused to join the new union. He was taken to the headquarters of the union and there interviewed. He was escorted through the rear door of the union headquarters and told to leave Butte, which he did.

At 1:30 A. M. on the morning of August 30, the rustling-card house at the Parrott mine was wrecked with dynamite. The explosion was a terrific one, and hundreds of men and women poured out into the street. The charge had been placed beside a window of the building. The concussion blew out the window, window-jamb and part of the wall. The interior of the building and its contents were a complete wreck. The Anaconda Copper Mining Company offered a reward of \$10,000 for information leading to the arrest and conviction of the person or persons who perpetrated this act.

Street demonstrations were frequent. "Muckie" McDonald, President of the insurgent union, openly defied the authorities and citizens of Butte, and threatened them with Direct Action. A warrant sworn out by the county attorney and given the sheriff was not served. A miner was killed in the back room of the new union headquarters. This was claimed to have been accidental, and no one was able to fix the blame. The looting of stores was urged by speakers on the street. Others advised dynamiting the public buildings and administering a taste of Direct Action if opposition to the policy of helping themselves was opposed.

Citizens began organizing, and permits were granted to carry arms. The organization of citizens was not an offensive one, but merely to protect homes and the business interests of Butte. Guards were placed at all the mines, and a force of men was detailed to guard the water supply of Butte. Several conferences of citizens were held, and a committee was sent to Helena to advise with Governor Stewart. Mayor Duncan admitted that conditions were serious, and Sheriff Driscoll informed the governor that the situation was beyond his control. Notwithstanding all this, the miners circulated a petition among the citizens and business men, requesting the governor not to send troops to Butte. The remonstrance was wired to the governor, and contained some 200 signatures.

### Militia Ordered Out.

Believing that a state of anarchy existed, Governor Stewart reluctantly ordered out the state troops. Ten companies were ordered mobilized at Helena, which was quickly and thoroughly accomplished. Martial law was declared September 1. The miners in Butte were fully aware that troops were on the way. The troops were in command of Major Dan J. Donohue, of Glendive, and arrived in Butte at 5 P. M., September 1. The militia, some 500 in number, were equipped with rifles and several gatling and machine guns. The entrance of troops into Butte was made without incident or excitement. Camp was pitched on North Main street, near the Original mine. The following day the troops were moved into the center of the city, and headquarters established at the court house and city hall.

Frank Conley, Warden of the state penitentiary at Deer Lodge, was appointed provost marshal, and the police force and entire city government were turned over to the militia. All saloons were closed, and street assemblages and public gatherings were not allowed except by permit. Summary court was organized under military jurisdiction, Major Jesse B. Roote presiding, and all persons arrested for offenses were brought before him for trial. There was no more examining of cards by the miners, and the grievance committee made no further effort to visit the mines.

On September 2, Provost Marshal Frank Conley with a squad of police visited the headquarters of the Butte Mine Workers' Union and arrested several men. All those found with guns were placed in the patrol wagon and taken to the court house and ordered by Major Donohue committed to jail without bail.

On September 4, habeas corpus proceedings were begun in the federal court for the release of D. W. Malone, George Evans, Alex McLane and others, who had been arrested and confined by the military authorities. This suit was brought by two prominent socialist attorneys of Butte. The case was dismissed by Judge Bourquin, September 10, the court contending that the military commander, when called into the field by the governor in an emergency, had the right to make arrests and deal out summary justice, even to the extent of taking human life as a military necessity for the restoration of order. Judge Bourquin declared that the federal courts had no jurisdiction to interfere, and that the matter was one entirely for the state courts to decide. Attorney H. L. Maury, acting in behalf of the men, immediately made an application for habeas corpus before Judge Donlan, of the district court. The hearing was brief, Judge Donlan also denying the writ, and Attorney Maury then renewed the application in the supreme court. An oral order, made by the supreme court September 21 and followed by a written decision, later dismissed the application of the petitioners, but ordered that if it appeared at the end of thirty days that the district court was able to execute its processes, the petitioners would again have the privilege of renewing their application, providing they were still held by the military authorities.

September 5, Major D. J. Donohue, Commander of the Militia, gave the citizens of Butte permission to convene the district court in order that proceedings could be instituted to remove Mayor Lewis J. Duncan of Butte and Sheriff Timothy J. Driscoll of Silver Bow County. A petition addressed to Judge J. J. Lynch, signed by twelve citizens, requested a grand jury to be called to investigate all officers in the city and county, particularly Mayor Duncan and Sheriff Driscoll. Proceedings to remove Mayor Lewis J. Duncan from office on the alleged grounds that he failed to do his duty in making no effort to suppress rioting and other local troubles were begun September 8, in the court of District Judge J. J. Lynch. Sheriff Timothy Driscoll was accused of a like offense a few days later by Butte citizens, and ordered to appear before Judge Donlan, September 17. Trials of Sheriff Driscoll and Mayor Duncan were held separately and consumed several weeks. September 30, the state supreme court denied a writ of prohibition to compel Judge Ayers of Lewistown, who had been called in both cases, to suspend the trial against Sheriff Driscoll on the ground that Judge Ayers lacked jurisdiction and that a disqualifying affidavit had been filed against him which he had overruled after the trial started.

October 6, Judge Ayers rendered a decision, holding in both cases that the mayor and sheriff had failed to perform their duties according to law, and removing them from office. Immediately the board of county commissioners convened and elected John Berkin sheriff of Silver Bow county, while that evening the city council, by a strict party vote, elected Clarence A. Smith, the socialist president of the council, as mayor. Both officers immediately qualified and assumed the duties of their offices.

"Muckie" McDonald, President of the Mine Workers' Union; J. E. Bradley, Vice President of the organization, and Thomas J. Coyle, an active member of the union who had been in hiding since the advent of state troops into Butte, were apprehended in a Butte lodging house on September 9 and placed in custody by Major Donohue and Provost Marshal Frank Conley. A letter was found on the person of Bradley, from Vincent St. John, General Secretary-Treasurer of the I. W. W., which was taken to indicate that an effort was being made to turn over the Butte Mine Workers' Union to the I. W. W. The militia made numerous arrests, a number of men being taken into custody for participating in the deportation of miners.

### Employers' Attitude Toward Union Labor.

The mining companies of the Butte district issued a statement September 9, declaring they would no longer recognize the Butte Miners' Union No. 1, the Western Federation of Miners, nor the Butte Mine Workers' Union, composed of seceding members from the Western Federation of Miners. The companies announced they would pay the same rate of wages which had prevailed, as stipulated in their contract with the old union, and would observe the eight-hour law provided for underground miners by the Montana statutes. The companies said they had decided to take into their own hands the matter of whom they intended

to employ, only after arriving at the conclusion that neither the Butte Miners' Union No. 1 nor the Butte Mine Workers Union could enforce peaceful jurisdiction over the men. It was claimed that the attitude of the Butte Mine Workers' Union toward the employer, as expressed in their published notices and in the constitution adopted by it, had put that organization beyond the possibility of being recognized or dealt with in any way. As far as the local union of the Western Federation of Miners was concerned, it was announced, the men were in open revolt against that organization and would not accept its jurisdiction. The contract price is still being paid in Butte, but neither union is being recognized.

September 11, the Butte Chamber of Commerce and a mass meeting of business men and citizens passed resolutions endorsing the attitude of Governor Stewart in sending troops to Butte, and requesting him to keep the soldiers in the city. On the same date, H. Lowndes Maury, an attorney and prominent Butte socialist, in a telegram to Senator T. J. Walsh, requested a congressional investigation of the presence of the national guard in Butte.

A number of saloons which failed to observe the order of the military authorities to stay closed were raided by the troops on different occasions, and all liquor found was destroyed.

October 2, the governor ordered the withdrawal of two hundred and thirty-six members of the National Guard. October 16, the governor ordered a further reduction, and some 200 militiamen were sent to their homes, leaving about 200 men on duty in Butte.

November 12, all of the troops stationed in Butte were relieved from duty, and martial law came to an end in Silver Bow county.

---

---

## **VIOLATIONS OF LABOR LAWS**

---

---



## Violations of Labor Laws.

During my incumbency in office I have found quite a number of violations of the nine-hour law passed by the last legislature for the protection of working women in this state. Early in the summer I had this law compiled, together with the Child Labor law, and printed in a little pamphlet in sufficient numbers to supply all establishments apt to employ help of this kind in the state.

The act protecting females being a new law, a warning for the first offense has been the practice, and in nearly every case brought to our attention it has been sufficient.

### Nine-Hour Law Violated.

The Secretary of the Helena Trades and Labor Assembly, in May, 1913, reported to me three firms in this city working the girls in violation of the women's nine-hour law, and asked our advice and assistance. The matter was taken up separately with each firm, and all promised in the future to observe the law. It was later ascertained that a certain meat market was paying no attention to the law. Evidence was obtained that this firm was working its cashier considerably longer each day than the time prescribed by this law. Warrant was issued for the arrest of the manager of this firm, and the date for trial set. A jury trial was decided upon, and the contention was set forth by the defendant's attorneys that the girl in question worked over-time of her own volition, and on the stand she admitted this to be a fact. Although the County Attorney argued that this was an infraction of the law, despite the attitude of the cashier, the jury brought in a verdict of acquittal.

Another case brought to the attention of the Commissioner is that of a mercantile company at Kalispell. This firm is alleged to have violated the nine-hour law, by working girls in their store for more than a period of nine hours on Saturdays only of each week. An effort was made to investigate the charge, but as no evidence could be secured the matter was dropped.

These cases are cited to show that it is not always possible to enforce this law. It is frequently the case that sufficient evidence cannot be secured, and, as in the Helena case, the sentiment of the jury was against the enforcement of the law although the case was plain.

### A Livingston and Missoula Case.

In Livingston, a proprietress of a restaurant was given the minimum fine of \$50, for requiring a waitress to work longer hours than the law allows. This case was afterwards carried to the district court and the decision reversed.

A woman conducting a boarding house in Missoula was also arrested on the complaint of an employe who was compelled to work from 5:50 in the morning until 9:00 o'clock at night—almost sixteen hours. This case was disposed of by a minimum fine of \$50.

### Child Labor Law Generally Observed.

It has not been necessary to prosecute a single case of violation of the Child Labor law although a few cases have been brought to the Department's attention. In each case a warning, either verbal or written, has been given which without exception has been sufficient to secure observance of the law.

### Failed to Convict.

Early in the summer of 1913 a complaint was filed with this Department by leading labor representatives of Butte, charging a violation of the eight-hour mining law by one of the large railway companies in tunnel and underground construction work in the immediate vicinity of Butte. Before this matter could be investigated, the work at that point was completed, and it was not until September that it was ascertained that similar work was being done at tunnel No. 5, near Mitchell, in Lewis and Clark county. The Commissioner promptly went in person to this camp and made a thorough investigation. It was found that this work was being done by a Spokane corporation, and that the law was being flagrantly violated, the men being compelled to work ten and eleven hours per day. These facts were laid before the County Attorney, and a warrant was issued for the arrest of the superintendent in charge. Trial of this case was begun October 4 and was postponed from time to time. A verdict was finally given in favor of the defendant although apparently sufficient evidence had been obtained to secure a conviction.

### A Case in Custer County.

During the past two years numerous complaints have come to my notice, of the violation of the eight-hour law on public works. The first case was brought by the county attorney of Custer county, against the foreman and eight of the employes of the Security Bridge company, alleging a violation of the statute providing eight hours as the limit of a day's work on city, county and state work. A plea of not guilty was at first entered by defendants, and a jury trial demanded, but this was later changed to a plea of guilty, upon the advice of the defendants' attorneys, and the case disposed of by a minimum fine of \$100 and costs of prosecution. In the case of the eight laborers, their fine was later remitted by the court, the foreman being the only one actually required to pay the fine.

### Complaints from Havre.

The Department was notified early in the month of July, 1914, that several contractors at Havre were working their men ten hours a day in the building of a poor farm, a city school building and in municipal grading and sidewalk construction work. This being a violation of the eight-hour law on public works, the Commissioner promptly visited Havre in person and made an investigation. After a conference with a number of workmen, the county attorney and the contractors in ques-

tion, assurances were secured that strict observance of the law would be followed in the future, and the matter in this way was satisfactorily adjudicated.

While in Havre another contractor was found to be violating this law in sewerage construction work. Necessary steps were likewise taken in this case also to secure enforcement of the law. No further complaints were received against either firm.

### Investigation at Lewistown.

On the 16th day of July, 1914, the Commissioner was advised through a communication from the Trades and Labor Council at Lewistown, that the eight-hour law on public works was being violated by a contractor engaged in putting in street paving in that city. Investigation proved the truth of these charges. No arrests were made, the contractor promising in the future to observe the law, and no further complaints were received against the firm at this office. It is therefore presumed that the law was subsequently observed.

### The Minimum Fine Assessed.

The Department received a complaint in July, 1914, charging a violation of the eight-hour law in connection with certain street improvement work being carried on at Roundup, in Musselshell county. Warrant had already been issued for the foreman in charge when the Commissioner arrived, and the trial was held the following day. The evidence was found to be conclusive, a conviction secured and the minimum fine of \$100 imposed.

### Helena Contractor Arrested.

A contractor at Helena was arrested July 10, 1914, charged with working his employes more than eight hours on municipal work. The matter was not brought to the attention of this Department, the complaint being made by a member of the teamsters' union, but owing to insufficient evidence, the defendant was found not guilty and discharged. Following this trial the work was completed on the eight-hour basis.

### A Complaint from Harlowton.

On October 20, 1914, the Department received a communication from Harlowton, complaining that a crew of men engaged in municipal street grading and sidewalk construction work was being employed for a period of more than eight hours per day in that municipality. An investigation confirmed the truth of these charges, although the person filing the complaint could not be located. However, the matter was taken up with the foreman in charge, who assured us that the law in the future would be observed. No subsequent complaint against the firm has been received.



---

---

## WORKING CONDITIONS

---

---



## Working Conditions.

In carrying out the provisions of the law establishing and governing this Department it is necessary to present a brief resume of industrial conditions as they have existed in the state during the years 1913-1914, the period covered by this report. Conditions at the present time are not entirely satisfactory, owing to the Butte labor situation and the curtailment of the production of copper, due to the disastrous war being waged in Europe, which has resulted in thousands of men being thrown out of work in the Butte copper district and has likewise affected employment in the smelters at Great Falls and Anaconda. To a large extent it has also affected railroad traffic, the coal mines and the timber industry. It is confidently expected, however, that with the cessation of hostilities in Europe, the demand for copper will be greater than ever before, and that the copper industry will rapidly recover from the severe shock given it by the declaration of war last August.

Prior to the closing of many of the Butte mines, conditions in Montana were comparatively satisfactory. Owing to the natural growth and development of the state, there has been an excellent demand for all kinds of labor. Crops, too, have been exceptionally good the past two seasons and prices for farm produce were never higher. This has created considerable new wealth which has been distributed throughout the agricultural districts and has added materially to the general condition and prosperity of the state as a whole.

In addition, considerable railroad construction work has been going on the past few years, and several reclamation projects have furnished employment in the summer months for a large force of men. In nearly all the cities and towns of the state there has been an increase of street, municipal and public improvements, and a condition of general industrial activity and development has everywhere in the state prevailed.

Generally speaking, the Montana workingman fares better than his fellow in other sections of the country. As a rule wages are slightly higher and working conditions are superior, while there is a marked tendency, especially in the larger and more important industries, toward the further improvement of working conditions.

The nine-hour law, passed two years ago by the Thirteenth legislative assembly for the protection of working women, was a wise and humane provision and is generally meeting with approval throughout the state. As a result of this law, conditions among women wage earners are much better than formerly, and very little opposition by employers to its enforcement has been observed. It is gratifying to note that few establishments have experienced any difficulty in adjusting their business to the requirements of this law.

### The "Safety First" Movement.

It is a matter of congratulation that some of the larger corporations, notably the Northern Pacific Railway company, the Chicago, Milwaukee and St. Paul Railroad company, and the Anaconda Copper Min-

ing company, have inaugurated the "Safety First" movement among their employes, and a vigorous campaign is being conducted to eliminate accidents as far as possible and conserve human life.

The safety movement, while comparatively new in this country, is so recent in Montana that it is impossible to tell just what amount of actual and direct beneficial effects have resulted from its adoption in the prevention of accidents and the loss of human life.

The "Safety First" campaign is being carried on in Montana much as in other states. A specialist in this line has been given charge of this department for each of the big corporations adopting the system, and he is expected to devise and install ways and means which make for "safety first" and a reduction of accidents. Instructions are given employes, particularly new men, with warnings in dangerous occupations, and the foremen and bosses are expected to use judgment in placing men for safety, and to set an example in caution and prudence for employes. Frequent inspections are made to discover any defects in machinery, and scuffling or cleaning and oiling of machinery while in motion is prohibited. Proper supervision of dangerous work and investigation of accidents, with a view of preventing a repetition of the same, are some of the tenets, while the treatment of minor injuries and caring for the injured while awaiting the arrival of a doctor are studied, taught and perfected. Some companies call the department an efficiency bureau, and a "Careful club" has been organized, and buttons are issued and worn by the employes. Frequent inspections are made in each department, usually by a committee of three workmen who are expected to report anything found dangerous, with suggestions as to the proper remedy. In some cases postal cards are given to the employes, in order that they may report to superiors any condition which appears in their judgment to be unsafe or dangerous. Suggestions can also be made in this way for the betterment of conditions, and inspection follows immediately. It is claimed for this system, especially where workmen's committees have been organized, that practically all suggestions made by the committees have been accepted by the companies and carried out.

Through the inauguration of the safety movement, many eastern corporations have reduced the cost of compensation. Earnest co-operative efforts on the part of the employer and employe have successfully and effectively reduced and eliminated many accidents formerly caused by carelessness, negligence, recklessness and indifference. By exercising proper care and discretion, two-thirds of the accidents from these causes can be eliminated from hazardous occupations.

### Suburban Homes for Working People.

Announcement was made a few months ago that the Anaconda Copper Mining company had conceived a plan to better the condition of its employes by setting aside a tract of 6,000 acres of land near Anaconda, to plat into small tract farms, affording an opportunity to the employes of the great Washoe smelter to purchase and own their own homes. The undertaking has attracted considerable attention, and

would appear practicable and feasible, providing the corporation does not attempt to assume company control. If sold at a reasonable price and upon the right kind of terms, the plan would seem to be commendable.

It has been suggested, should the plan prove successful, that the same opportunity could be given the miners in Butte and the smeltermen at Great Falls, inasmuch as there is said to be sufficient land available near those cities which could be utilized for a like purpose.

### Conditions of Farm Labor.

The Department found it impossible, with the means at its disposal, to collect during the brief period of its existence any reliable statistics or data with reference to farm or agricultural labor. In the absence of a better method the Commissioner was compelled to rely for information touching this subject on the various newspapers and whatever knowledge could be acquired and absorbed in brief trips and travels about the state.

During the haying and harvesting period there appears to be a very noticeable scarcity of available and efficient farm help in the agricultural districts. This is found to be the prevailing condition with each recurring season, with perhaps a more strongly pronounced tendency during the past two years. Especially during the harvest season of 1913 was there a lack of available and reliable help. This condition prevails only from the early part of July, when haying begins, until harvesting and threshing are completed late in the fall.

As a rule ordinary farm work is shunned by the average laborer when other employment can be found. With plenty of other work available, farm help, especially by the month, has been almost impossible to secure. This condition is partially due to the long hours and hard work required on the farms and the poor accommodations provided in most cases. There is also a lack of companionship and amusement which is felt keenly, particularly by the younger men. As a result the laborer seeks other employment where hours are shorter and where companions and a variety of entertainment can be obtained.

It appears that dairy farms are the greatest sufferers from a lack of reliable and trustworthy help. It is found quite impossible to keep steady help for this kind of work. This is said to be one of the chief reasons why the dairy and creamery industry has failed to show the growth, improvement and development which has been anticipated, and which the natural conditions of the state would seem to warrant.

Wages by the day will average from \$2.50 to \$4.00, depending upon the season, the locality and the scarcity of help. Sheepherders receive from \$45.00 to \$60.00 per month, with such accommodations as are provided for that class of help. This, however, is a substantial increase in the wages paid sheepherders fifteen to twenty years ago. Monthly farm wages in all localities of the state have advanced considerably during the past few years. From \$30.00 to \$50.00 is the prevailing monthly farm wage.

From information obtained by this office, it would appear that there are many serious and perplexing questions connected with the problems of farm help. As an inducement to keep the laborer on the farm, this Department would suggest that the hours be made as short as possible; the board should be good, the hours regular, and the sleeping accommodations clean, comfortable and attractive. The chores should be done at stated and regular intervals and not late in the evening, after a hard day's work, when quitting time has arrived. Make the hours and work conform as nearly as possible to those in town, and pay promptly. Perhaps if these suggestions were carried out, a partial remedy would be found for the perplexing problem of keeping competent and efficient help on the farm.

### Child Labor.

During practically the two years the Department has been in existence, no serious difficulty has been encountered in the observance and enforcement of the Child Labor law. Very few violations have occurred, especially among the larger commercial and industrial establishments where a large percentage of the people find steady employment. Not a single complaint has been made against any railroad, mining or smelting company during this period, a particular desire and willingness being shown in these industries to observe and comply with the provisions of the law.

There are no serious problems connected with the employment of children in this state. Child labor is decreasing in Montana, while apparently on the increase in many other states. The present child labor law is working very satisfactorily, and in conjunction with an excellent compulsory educational law, is having a salutary and beneficial effect in keeping children in school, and affording them protection in their physical and educational rights.

The laws of Montana require that the child labor law shall be enforced jointly by the Department of Labor and Industry and the Bureau of Child and Animal Protection. Provisions are made for the taking of an annual school census in each county, and the same is carefully transcribed and compiled in the office of the Department of Labor and Industry at the State Capitol. The name, age, date of birth and sex of each child is taken, together with the name of each parent or guardian. These records are designated by law the official records of all school children in the state. Upon attaining the age of 16 any child may make application to the Commissioner of the Department of Labor and Industry for an age certificate which must be presented to any employer with whom such child may seek employment. If the services of the child are retained, the employer must countersign the certificate and return the same promptly to this office, where it is placed on file as a record of this Department. Should any child be proven to be under sixteen years, who is given employment without an age certificate, both the employer and parent or guardian are guilty of a misdemeanor, and subject to fine or imprisonment or both.

Section 1746, Revised Codes, designates the prohibited occupations for children under 16 years of age. No person, firm or company in business in the state, nor any foreman, subordinate or person in authority for any firm is permitted to give employment to any child under 16 years of age, in, on or about any mine, mill, smelter, factory, workshop or compressed air railroad, or passenger or freight elevator, or where any machinery is operated, under penalty of being found guilty of a misdemeanor and punishable as provided by the statutes. Messenger service in any telephone, telegraph or other company is also prohibited to children under 16 years of age, as is any other occupation not enumerated, which is known to be dangerous or unhealthful or detrimental to the morals of a child.

It is estimated that 1,700,000 children of a tender age are toiling in the mines, mills, factories and workshops of America at the present time. These figures, if authentic, or anywhere near correct, are appalling in the extreme. The evils of this system should furnish cause sufficient to unite every man and woman in a vast organization and campaign against the employment of child labor. It is gratifying to feel that Montana, perhaps less than any other state, is furnishing but few recruits to this vast army of working children.

### Pay Rolls of the Butte District.

The year 1913 was probably the most important and prosperous one in the history of the Butte mining industry. Practically \$20,000,000 was paid out in wages by the different companies operating in this district, and had it not been for the European war which caused many of the mines to close in August, and the disaffection of the Butte miners, this amount would probably have been exceeded the past year.

The pay roll for the Anaconda Copper Mining Company, in its different departments and industries throughout the state, was a little over \$20,000,000 in 1913, which added materially to the volume of business and general prosperity of the state as a whole. It is estimated that the pay roll during several months of 1913-14 exceeded a million and a half dollars per month, and when all other lines of industry of the Butte district are added to the mining industry, the aggregate probably reached \$24,000,000 paid in wages annually, or an average pay roll of \$2,000,000 per month. Probably 16,000 is a conservative estimate of the number of men who enjoyed steady employment in Butte during 1913. Of these, between 12,000 and 13,000 were miners, and the balance found employment in other industries.

Wages in the Butte mines are determined and fixed by the price of copper. In May, 1912, a contract running three years was entered into by the Anaconda Copper Mining Company and the Butte Miners' Union, and while the company no longer recognizes the jurisdiction of the union, this contract is still being observed as far as the payment of wages is concerned. The contract is in the form of a graduated wage scale, and provides that when copper is 17c per pound or more, wages for miners shall be \$4 per day; when copper is below 17c and above 15c

the rate of wages shall be \$3.75 per day; when copper is below 15c wages shall be \$3.50 per day.

The workingmen's minimum wage scale in Butte per day is \$3.50. This is the prevailing wage for unskilled labor in that city.

The Butte mining district has attained the distinction of being the greatest single copper-producing district and the greatest single zinc-producing district in the world. There is one state which surpasses Montana in the output of copper, but no other single state can approach Montana's production.

In 1912 one-fourth of the copper mined in the United States and one-seventh of the entire amount of copper mined in the world were produced in this district.

With the close of the year 1913, the gross output of Butte's district in copper since the first copper was taken from the Anaconda hill, will approximate one billion dollars. To this must be added the additional values in by-products, including zinc, silver and gold, to arrive at the total metal values taken from the hills of this vicinity.

### Pay Rolls for Year 1913.

Anaconda Company (mines of Butte district).....	\$14,400,000
East Butte Company .....	695,000
North Butte Company .....	1,250,000
Butte Superior Company.....	1,180,000
Tuolumne Company .....	168,000
Butte Duluth Company.....	100,000
Pilot Butte Company .....	60,000
Davis-Daly Company .....	292,000
Butte-Alex Scott Company .....	182,500
Clark Companies .....	600,000
Smaller Companies (estimated) .....	500,000
<b>Total.....</b>	<b>\$19,427,500</b>

### Twenty Million Paid by One Concern.

The following statement shows the amount paid out for labor in the mines, smelters, logging camps, coal mines and other departments of the Anaconda Copper Mining Company during 1913:

January .....	\$1,675,000
February .....	1,491,000
March .....	1,567,000
April .....	1,641,000
May .....	1,733,000
June .....	1,573,000
July .....	1,623,000
August .....	1,743,000
September .....	1,747,000
October .....	1,834,000
November .....	1,827,000
December .....	1,733,000
<b>Total.....</b>	<b>\$20,187,000</b>

TABLE NO. 1—STATISTICS OF WAGE EARNERS.  
Average Wages of Organized Employes in Montana. Compiled From Various  
Wage Scales Adopted by Labor Organizations.

OCCUPATION	Males	Males	Females	Females	Males	Females
	Average Per Day.	Average Per Day.	Average Per Day.	Average Per Day.	Average Per Month, Board Included.	Average Per month, Board Included.
Bakers	\$ 4.25	9				
Barbers	3.33 $\frac{1}{2}$	10				
Bartenders	3.65 $\frac{1}{2}$	9				
Blacksmiths	4.50	8 $\frac{1}{2}$				
Boilermakers	4.15	8 $\frac{1}{2}$				
Brewery Workmen	4.53	8				
Brickmasons and Plasterers	7.16 $\frac{2}{3}$	8				
Bridge and Structural Iron Workers	4.00	8				
Building Laborers	4.50	8				
Butchers and Meat Cutters	4.50	10				
Carpenters	5.00	8				
Cement Finishers	5.50	8				
Cement Helpers	4.00	8				
Cement Makers	3.54 $\frac{1}{2}$	11				
Chambermaids				9		30.00
Cigarmakers	4.28	8				
Coal Miners						
Common Laborers	3.00	8				
Cooks (Head)		9 $\frac{1}{2}$		9	101.50	75.00
Cooks, (Second)		9 $\frac{1}{2}$		9	79.45	65.00
Cooks (Third)		9 $\frac{1}{2}$		9	60.70	40.00
Dishwashers		9 $\frac{1}{2}$		9	45.10	30.00
Electrical Workers	4.82 $\frac{2}{3}$	8				
Flour and Cereal Mill Employees	3.75	9				
Job Compositors	4.25	8				
Lathers, Wood, Wire and Metal	6.50	8				
Laundry Workers	3.45	9	2.30	9		
Leather Workers	4.58 $\frac{1}{3}$	9				
Linotype Operators	5.11	7 $\frac{1}{2}$		4.50	8	
Metalliferous Miners	3.50	8				
Mill and Smeltermen	3.50	8				
Moulders	4.25	8				
Moving Picture Oper- ators	4.30	8				
Musicians (per hour)	1.00					
Painters and Paper- hangers	4.93 $\frac{1}{4}$	8				
Plumbers	7.00	8				
Printing Pressmen	4.50	8				
Railroad Machinists	4.05	9				
Retail Clerks	3.35	9	1.85	9		
Sheet Metal Workers	4.50	8				
Stationary Engineers	4.00	8				
Stereotypers	5.00	8				
Street Railway Em- ployes	3.15	9				
Tailors	4.00	8				
Teamsters	3.25	9				
Telephone Operators			1.80	8 $\frac{1}{2}$		
Waiters		8		9	70.00	35.00

Barbers receive a guarantee of from \$18 to \$21 per week and 60 per cent of receipts over \$30.

Coal miners are paid by the ton, the scale varying in the different mines and fields, depending upon the opportunity for getting out coal and the general working conditions.

Linotype operators work 7 $\frac{1}{2}$  hours on newspaper composition and eight hours on job work.

Musicians are paid a uniform wage of \$1 per hour.

The wages of telephone operators vary, depending on the length and period of service.

TABLE NO. 2—STATISTICS OF THE PRINTING AND PUBLISHING INDUSTRY IN MONTANA, BY COUNTIES, 1914.

COUNTY.	Capital invested.	No. of Establishments.	No. General Newspaper and Job Plants.	No. Exclusive Newspaper Offices.	No. Exclusive Job Offices.	Newspapers Printed at Other Plants.	Total No. Employees, Including proprietors and Firm Members.	No. of Proprietors and Firm Members Actively Engaged in Enterprise.	Total No. Employees Other Than Proprietors and Firm Members.	No. Employees, Including Proprietors and Firm Members Affiliated With Trades Unions.	No. Offices With Com- position by		No. Pressses		No. Typesetting Machines.				
											Machine.	Hand.	Job Presses.	Cylinder Presses.	Linotype.	Jr. Linotype.	Monotype.	Simplex.	Unitype.
Beaverhead ...	29,000	4	4	0	0	0	16	3	13	3			6	2	0	0	1	0	1
Big Horn ...	3,000	1	1	0	0	0	4	6	2	1			2	1	0	0	0	0	0
Blaine ...	7,800	4	4	0	0	0	9	6	1	1			4	3	0	0	0	0	0
Broadwater ...	7,500	4	4	0	0	0	15	6	5	10			6	2	0	0	0	0	0
Carbon ...	25,675	4	4	0	0	0	103	5	8	8			16	8	1	0	0	0	1
Cascade ...	242,600	11	8	1	2	1	103	16	87	69			18	4	14	0	0	0	1
Chouteau ...	18,475	7	7	0	0	0	46	7	39	32			11	3	1	0	0	0	1
Custer ...	46,900	7	7	0	0	0	38	7	21	31			17	9	2	0	0	0	0
Dawson ...	47,750	13	13	0	0	0	78	17	33	2			5	4	0	0	0	0	0
Deer Lodge ...	100,000	2	1	0	0	0	50	12	25	51			10	20	0	0	0	0	0
Fergus ...	97,750	14	14	0	0	0	43	15	31	17			11	19	0	0	0	0	0
Flathead ...	64,500	11	11	0	0	0	35	7	6	4			4	9	0	0	0	0	0
Fallon ...	11,400	4	3	1	0	0	1	4	28	21			11	2	0	0	0	0	0
Gallatin ...	49,600	6	6	0	0	0	35	6	3	1			3	2	0	0	0	0	0
Groff ...	12,500	2	2	0	0	0	9	6	23	11			12	3	0	0	0	0	0
Hill ...	34,900	1	1	0	0	0	38	15	23	11			19	2	0	0	0	0	0
Jefferson ...	6,000	2	2	0	0	0	32	16	11	8			12	2	0	0	0	0	0
Lewis & Clark ...	222,000	8	8	1	4	7	128	16	112	88			19	17	0	0	0	0	1
Lincoln ...	33,800	3	3	0	0	0	11	4	7	3			4	3	0	0	0	0	0
Madison ...	20,000	4	4	0	0	0	16	6	10	10			6	4	0	0	0	0	0
Meagher ...	11,900	4	4	0	0	0	13	5	7	1			3	4	0	0	0	0	0
Missoula ...	53,300	5	5	0	0	2	74	13	61	41			9	6	0	0	0	0	0
Musselshell ...	30,400	5	5	0	0	2	16	8	8	4			6	6	0	0	0	0	0
Park ...	25,000	4	4	0	0	0	19	5	14	8			3	3	0	0	0	0	0
Powell ...	15,100	2	2	0	0	0	8	3	14	3			2	2	0	0	0	0	0
Ravalli ...	25,500	4	4	0	0	0	16	4	12	0			7	3	0	0	0	0	0
Rosebud ...	26,200	4	4	0	0	0	10	5	6	4			5	3	0	0	0	0	0
Sanders ...	9,000	3	3	0	0	0	4	4	6	0			2	3	0	0	0	0	0
Sheridan ...	57,850	22	20	2	2	0	61	27	34	14			4	1	0	0	0	0	0
Silver Bow ...	255,700	6	6	0	0	0	221	24	197	193			22	16	22	0	0	0	0
Stillwater ...	8,100	3	3	1	3	4	8	6	6	0			3	2	0	0	0	0	0
Sweetgrass ...	4,000	0	0	0	0	0	3	1	17	6			2	1	0	0	0	0	0
Teton ...	34,000	12	12	0	0	0	32	15	20	0			15	7	0	0	0	0	0
Valley ...	29,500	7	7	0	0	0	27	7	27	4			14	4	1	0	0	0	0
Yellowstone ...	143,300	11	10	0	0	2	60	15	45	40			14	11	3	1	0	0	1
Total	1,796,000	215	201	10	12	25	1,950	301	952	655			319	184	107	5	1	1	5

TABLE NO. 3--NO. OF EMPLOYEES, WAGES AND HOURS OF LABOR, IN THE PRINTING INDUSTRY IN MONTANA, 1914.

	General Newspaper Job Work.			Editorial.			Job Com-position.			News Com-position.			Press Room.			Book Binding.			Stereo-typing.		
	Wages Per Week.			Wages Per Week.			Wages Per Week.			Wages Per Week.			Wages Per Week.			Wages Per Week.			Wages Per Week.		
	Hours Per Day.			Hours Per Day.			Hours Per Day.			Hours Per Day.			Hours Per Day.			Hours Per Day.			Hours Per Day.		
	Number of Employees.			Number of Employees.			Number of Employees.			Number of Employees.			Number of Employees.			Number of Employees.			Number of Employees.		
Cities Over 10,000—																					
Males .....	528	37.20	668	37.75	788	31.25	1138	35.30	638	26.25	328	31.21	88	37.33							
Females .....	148	14.00	78	21.20	338	9.00	58	34.12	178	18.00	278	11.17	38	17.20							
Apprentices .....	168	11.00	.....	.....	118	13.35	98	13.20	178	11.60	38	11.65	.....	.....							
Cities Between 5,000 and 10,000—																					
Males .....	708	23.70	158	28.00	148	23.30	208	26.78	68	20.00	18	18.00	.....	.....							
Females .....	78	11.60	28	13.50	.....	.....	18	7.50	.....	.....	.....	.....	.....	.....							
Apprentices .....	98	9.55	28	6.00	28	13.00	28	8.00	28	10.00	.....	.....	.....	.....							
Cities Between 2,000 and 5,000—																					
Males .....	338	23.40	119	19.56	98	23.33	58	22.35	38	14.00	.....	.....	.....	.....							
Females .....	38	15.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Apprentices .....	38	11.33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....							
Cities and Towns Under 2,000—																					
Males .....	198	20.15	258	21.64	148	21.00	.....	.....	.....	.....	.....	.....	.....	.....							
Females .....	498	9.93	.....	.....	28	5.00	.....	.....	.....	.....	.....	.....	.....	.....							
Apprentices .....	288	8.84	.....	.....	18	12.00	.....	.....	.....	.....	.....	.....	.....	.....							

Note: In addition to the above, there is one steel plate engraving and a photo engraving plant, being operated at Butte, with a total of five employees. The former plant employs a male at \$24.00 per week, and two females at \$6.00 and \$8.00 per week, respectively. In the photo engraving plant one male is employed at \$23.00 per week, and an apprentice at \$7.00 per week.

TABLE NO. 4—WAGES OF SHEPHERDERS AND FARM HANDS, SHOWING COMPARISONS FOR 1896, 1900 AND 1914.

COUNTIES.	1896	1900	1914	1900	1914	1900	1914	1900	1914
	Average Wages, herders, With Board and Lodging.	Average Wages, herders, With Board and Lodging.	Percent Increase in Wages, 1900 Over 1896.	Average Wages, herders, With Board and Lodging.	Percent Increase in Wages 1914 Over 1900.	Percent Increase in Wages 1914 Over 1896	Average Wages, Farm Hands, With Board and Lodging.	Average Wages, Farm Hands, With Board and Lodging.	Percent Increase in Wages 1914 Over 1900.
Beaverhead	\$25.00	\$34.50	38.				\$30.00	\$40.00	33.33
Big Horn				\$40.00				\$35.00	
Blaine	33.00	37.00	12.12	37.00	12.12	12.12	33.00	39.50	20.
Broadwater	32.00	35.00	9.37	45.00	28.57	40.62	32.00	40.00	25.
Carbon	30.00	36.00	20.	45.00	25.57	50.	32.50	37.50	15.40
Cascade	30.00	36.00	20.	47.00	30.55	56.66	30.00	35.00	16.66
Chouteau	31.00	36.50	17.74	47.50	30.14	53.23	33.50	40.00	19.40
Custer	30.00	32.50	8.33	45.00	38.75	50.	33.50	40.00	23.
Dawson	28.00	31.00	10.71	50.00	61.30	80.	30.50	40.00	31.14
Deer Lodge	33.00	34.50	4.57	46.00	33.33	39.39	32.50	40.00	23.08
Fallon									
Fergus	31.00	33.00	6.45	45.00	36.36	45.	33.00	40.00	21.21
Flathead							31.00	38.50	24.20
Gallatin	30.00	38.00	26.66	45.00	18.95	50.	34.00	38.50	13.33
Granite	35.00	35.00		45.00	28.57	28.57	31.00	40.00	29.
Hill	31.00	36.00	16.12	38.00	5.55	22.60	33.00	35.00	6.06
Jefferson	25.00	35.50	42.	40.00	12.66	60.	32.50	35.00	7.75
Lewis & Clark	30.00	34.25	14.16	45.00	31.43	50.	32.00	40.00	25.
Lincoln							30.00	37.50	25.
Madison	30.00	35.00	16.66	43.00	23.	43.33	32.00	40.50	42.20
Meagher	31.00	37.00	21.	50.00	35.15	61.	32.50	41.00	26.15
Missoula				40.00			31.50	37.50	19.04
Musselshell				45.00				40.00	
Park	38.00	40.00	5.55	45.00	12.32	18.41	30.50	40.00	31.11
Powell							31.00	40.00	29.03
Ravalli	30.00	35.00	16.66	50.00	42.86	66.66	31.00	35.00	12.90
Rosebud	30.00	32.50	8.33	45.00	38.46	50.	30.00	37.50	25.
Sanders							30.00	38.00	26.66
Sheridan				45.00				38.50	
Silver Bow									
Stillwater				45.00				39.00	
Sweet Grass	30.00	34.00	13.33	45.00	32.35	50.	34.00	39.00	14.70
Teton	30.00	34.50	15.	42.00	21.74	40.	32.50	40.00	23.07
Valley	33.00	38.50	16.66	47.50	23.38	43.93	33.00	35.00	6.06
Yellowstone	30.00	36.00	20.	45.00	28.	50.	32.25	40.00	24.06
Average Wages and Percent-ages	\$30.83	\$35.80	16.12	\$44.57	24.50	44.56	\$31.71	\$38.71	22.07

## FIRST BIENNIAL REPORT

53

## OCCUPATION.

	\$	2.00	\$	1.00	\$	38.69	\$	24.90	\$	10 2-3	11 1-3
Ranch Hands	2.00									10	11
Dairy Help	2.00	1.00				44.85	75.00	27.50		11	11 2-3
Haying Hands	2.40					45.00				10	
Harvest Hands	2.65					48.47				10	
Common Laborers					2.68					10	
Section Men					1.55					9 1-3	
Cooks	3.75										
Dishwashers	1.20					67.37		39.13		11	
Waiters	1.75	1.25				32.09		29.03		10 1-3	9
Chambermaids	1.00	1.00				38.00		33.33		10	9
Domestics						30.00		30.00		10	10
Domestics						30.00		27.76		10	10
Hod Carriers					3.50					8	
Porters	1.25				2.50	40.00				10	
Messenger Boys							63.75				
Shoemakers					3.50		18.50			8	
Bakers					3.50		81.25			8	
Janitors						65.00				9 1-2	
Butchers							87.33	60.00		10	
Meat Cutters					3.75		73.60			10 1-9	
Man and Team					3.75		91.26			10	
Teamsters					6.73		97.50			10	
Tinners					2.90					9 2-11	
Blacksmiths					4.00	42.43				9 2-11	
Stone Cutters					3.75			95.00		8 1-3	
Solicitors					6.00					9 3-8	
Collectors					3.00		75.00			8	
Stenographers					3.00					8	
Municipal and Street Work					3.00		75.00			8	
Fruit Pickers	1.75				3.00		90.00	54.21		8 2-5	
Fruit Packers					2.15	1.75				9	9
Clerks					3.00					9	
Bookkeepers							78.64			9 4-7	
Cement Finishers					5.00		81.00	51.25		9 4-7	9
Cement Laborers					3.25					8	
Telephone Operators							40.00			8 1-3	
Sheepherders						44.57				12	

\*Telephone Operators' wages vary from \$30.00 to \$75.00 per month, depending on efficiency and period of service.

\*Section Men work eight hours in winter and ten hours in summer.

zThe hours of work for sheepherders vary from seven to nine in winter, and twelve to fifteen in summer.

oWages of bookkeepers vary from \$75.00 to \$200.00 per month.

xCollectors and Solicitors often work on a commission basis.

TABLE NO. 6—GENERAL SUMMARY BY YEARS OF THE BUSINESS  
TRANSACTIONED BY THE BUTTE FREE EMPLOYMENT OFFICE.

YEAR.	Applications for Help.	Applications for Work.	Total Male Help Supplied.	Total Female Help Supplied.	Total Positions Filled.
1905	11,653	13,555	5,614	4,660	10,274
1906	10,379	12,798	4,376	3,974	8,350
1907	8,317	9,439	3,660	2,610	6,270
1908	6,445	6,011	1,895	2,417	4,312
1909	5,191	6,258	1,846	2,644	4,490
1910	2,622	7,334	2,348	2,140	4,488
1911	2,019	7,452	1,179	1,424	2,603
1912	496	3,863	1,112	1,666	2,778
1913	434	3,302	998	1,661	2,659
1914	.....	.....	.....	.....	.....

TABLE NO. 7.—STATEMENT OF THE BUSINESS TRANSACTED BY THE BUTTE FREE EMPLOYMENT OFFICE FOR THE YEAR 1913.

APPLICATIONS AND POSITIONS CLASSIFIED.	TOTAL.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Applications for Work—Male.....	92	96	108	133	130	102	130	130	205	96	110	95
Applications for Work—Female.....	109	99	111	101	115	81	267	125	316	242	174	135
Applications for Help—Male.....	67	57	77	80	98	81	105	110	120	83	95	35
Applications for Help—Female.....	198	147	214	275	254	83	181	247	300	204	119	204
Positions Filled—Male.....	67	57	77	80	98	81	100	110	115	83	95	35
Positions Filled—Female.....	112	114	138	167	136	83	181	125	210	141	119	135
NATURE OF POSITION FILLED—MALE.												
Miners, Section Men and Laborers.....	58	56	71	65	88	70	64	90	95	79	90	82
Ranchers, Hands and Milkers.....	9	1	5	15	10	11	41	20	20	5	5	3
Miscellaneous.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
FEMALE.												
Chambermaids and Domestic.....	76	77	97	117	106	48	100	68	105	100	69	75
Hotel and Restaurant Help.....	36	37	91	56	28	27	81	57	90	35	40	50
Miscellaneous.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Positions Filled in City—Male.....	58	56	69	65	88	70	64	90	95	79	90	32
Positions Filled in City—Female.....	108	106	177	155	188	75	167	115	195	135	110	125
Positions Filled Out of City—Male.....	9	1	8	15	10	11	41	20	20	5	5	3
Positions Filled Out of City—Female.....	4	8	11	12	8	8	14	10	15	6	10	10

TABLE NO. 8—STATEMENT OF THE BUSINESS TRANSACTED BY THE  
BOZEMAN FREE EMPLOYMENT OFFICE FOR THE YEAR 1913.

APPLICATIONS AND POSITIONS CLASSIFIED.	May.	June.	July.	August	September.	October.	TOTAL.
Applications for Work—Male.....	20	23	30	52	80	23	228
Applications for Work—Female.....	.....	.....	2	.....	.....	.....	2
Applications for Help—Male.....	16	23	26	52	80	23	220
Applications for Help—Female.....	.....	.....	1	.....	.....	.....	1
Positions Filled—Male.....	16	21	26	52	80	23	218
Positions Filled—Female.....	.....	1	1	.....	.....	.....	2
NATURE OF POSITIONS FILLED—Male.							
Miners, Section Men and Laborers.....	.....	.....	9	12	12	5	38
Ranch Hands and Milkers.....	10	21	16	40	68	18	173
Miscellaneous.....	6	1	2	.....	.....	.....	9
FEMALE.							
Chambermaids and Domestics.....	.....	1	2	.....	.....	.....	3
Hotel and Restaurant Help.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous.....	.....	1	.....	.....	.....	.....	1
Positions Filled in City—Male.....	6	.....	9	12	.....	7	34
Positions Filled in City—Female.....	.....	.....	.....	.....	.....	.....	.....
Positions Filled Out of City—Male.....	10	21	17	40	80	16	184
Positions Filled Out of City—Female.....	.....	1	1	.....	.....	.....	2

TABLE NO. 9—STATEMENT OF THE BUSINESS TRANSACTED BY THE LIVINGSTON FREE EMPLOYMENT OFFICE FOR THE YEAR 1913.

APPLICATIONS AND POSITIONS CLASSIFIED.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Applications for Work—Male.....	150	400	137	144	84	61	30	64	1,070
Applications for Work—Female.....	2	...	2	3	...	...	...	...	7
Applications for Help—Male.....	65	161	...	...	...	...	...	...	226
Applications for Help—Female.....	2	...	2	...	...	...	...	...	4
Positions Filled—Male.....	107	96	137	144	84	61	27	64	720
Positions Filled—Female.....	2	...	2	3	...	...	...	...	7
NATURE OF POSITIONS FILLED—									
MALE.									
Miners, Section Men and Laborers.....	53	49	15	9	10	12	8	38	194
Ranch Hands and Milkers.....	41	38	120	132	74	49	16	18	488
Miscellaneous.....	13	9	2	3	...	...	3	8	38
FEMALE.									
Chambermaids and Domestics.....	...	...	...	...	...	...	...	...	...
Hotel and Restaurant Help.....	2	...	2	...	...	...	...	...	4
Miscellaneous.....	...	...	...	3	...	...	...	...	3
Positions Filled in City—Male.....	18	...	...	10	2	12	8	46	96
Positions Filled in City—Female.....	...	...	...	...	...	...	...	...	...
Positions Filled Out of City—Male.....	89	96	137	134	82	49	19	18	624
Positions Filled Out of City—Female...	2	...	2	3	...	...	...	...	7



---

---

## **COST OF LIVING**

---

---



## Cost of Living

Increased cost of living and the means of reducing it is an important subject, and one of the serious problems which confront the public of today. In view of the widespread interest and consideration given this economic question by Montana people, a considerable effort was put forth by the Department during the biennial period just closed, in gathering prices of commodities and collecting and compiling statistics and data which would be of interest and value in drawing a comparison and determining the difference in the cost of maintaining a family ten and fifteen years ago and the cost of living of the present day. The following chapter is devoted, therefore, to investigations on this subject.

In the tables appended hereto will be found a list of the retail prices of the principal articles of food commodities consumed by the average Montana family, January 1, 1914. Sixty of the important cities and towns of the state are represented in this report, selected in their respective localities by reason of their size, location and importance, and in order to compare their prices wherever possible with the prices in other towns in close proximity and in the same section of the state. Much of the information gathered was secured by blanks sent out by mail, although in many instances a personal visit by an agent of the Department was found necessary to secure the information wanted. Each town is represented by the report of one firm, usually the leading merchant of that particular municipality. Names of firms reporting are not given for the reason that in practically all cases, those supplying information desired to avoid identification.

The quotations furnished are for the most part for standard brands of goods, but in many instances the maximum and minimum are quoted. In many cases the quality of the article quoted varies, as well as the size and quantity of can or package. This will account for much of the wide discrepancy in prices of many articles listed. So many different brands of goods are sold on the market having a different sized can or package, that a uniform list of goods and prices was found impossible to secure.

In a few instances the retail price on some particular commodity will be found substantially less than the wholesale prices herewith quoted. This difference is accounted for by the fact that in many towns a cheaper grade of goods is often sold than that handled by the Montana wholesaler. The European war has affected prices materially, many articles showing an advance in price since the breaking out of hostilities.

This table will form the basis of a permanent record of food prices, and should be of value and interest for comparative purposes in the years to come.

At considerable expense, annoyance and a great deal of labor, the Department is able to present five tables representing the five principal cities of the state, giving the retail price of groceries and meats, Janu-

ary 1, 1910 and 1914, as compared with January 1, 1900, and showing the percentages of increase and decrease in each of the articles listed. These prices are particularly interesting for the reason that it will enable one to ascertain just what articles have advanced most rapidly among the commodities which constitute the ordinary Montana household fare. The commodities which show the least increase in price are the various kinds of canned and dried fruits and vegetables, while those showing the greatest increase are hams, bacon, lard and fresh meats.

Wholesale prices are also quoted on the same list of grocery items in the cities of Butte, Helena, Great Falls, Billings and Missoula, these towns being the principal wholesale centers of the state.

Prices of coal and wood, delivered, are likewise quoted in the principal cities and towns of the state, March 1, 1914.

It will be seen on looking over the grocery prices that canned goods are designated according to the usual understanding of the size of these packages, as they were sold prior to the enforcement of the net container law, January 1, 1914. According to a leading Montana merchant, a package designated as 2 lbs. in reality contained only 1 lb. 4 oz.; a package designated as 2½ lbs. contained only 1 lb. 14 oz.; a package designated as containing 3 lbs. contained only 2 lbs. 3 oz. The net contents of a so-called 50 lb. sack of flour is 49 lbs.; a 100 lb. sack of flour contains but 98 lbs., and so on, in proportion, for all goods sold by the can and package. The same shortage is prevalent in packages sold today, the Weights and Measures Department having jurisdiction over the net container, but none with reference to the net contents. Under the new law, however, the net contents is required to be marked on each and every can or package. An ordinary 5 lb. lard pail contains only 4 lbs. 9 oz., but under the new requirements, the weight is given. There is nothing in the law to prevent the manufacturer or merchant from putting into this pail only 2 lbs. of lard, if so labeled. Space will not permit of a general discussion of this subject, but it is well to bear in mind that nearly every commodity sold in packages and cans is of short weight, when compared with the popular belief of the size and weight, but the correct contents are now designated, or should be, under the new weights and measures law. It is well in making purchases to insist on the weight being given, either on the bill or package, for each and every article bought. In making a comparison of meat prices, it was thought desirable to give the wholesale price list for each cut of meat as listed and distributed to the retail trade. This was found to be impossible for the reason that different terms and classifications are used in the distribution of fresh meats by the wholesaler from those used by the retailer supplying the local trade. Most of the wholesalers furnish quotations for whole beef carcasses, but usually the beef is separated into sides, forequarters and hindquarters. Much of the carcass is, however, sold by the quarter and varies from 10 to 16 cents. Methods of cutting beef vary in localities, and to some extent, affect prices. Wholesale beef carcasses sold January 1, 1914, at approximately 12½c, and cows and heifers brought from 1 to 1½

cents per pound less. These prices are subject to market changes and vary largely upon the age and condition of the animal used.

The same conditions apply to mutton prices, the carcass being sold by the whole or subdivided into racks and legs. Whole carcasses brought 10 cents at the time this investigation was made, while racks brought 16, and legs, 15c per pound. Veal brought from 12 to 15c, and hogs 9 to 11c wholesale.

Not all of the firms furnishing information for this report deliver purchases, but practically all of the firms in the larger cities are compelled to do so, and this is undoubtedly an important factor governing prices. The cost of delivery differs considerably in the various cities, and while a great convenience to the public, adds largely to the cost of every article sold. It was ascertained by investigation that the cost of delivery in Butte was 6½c per package; in Helena 8c; in Billings 10c; in Missoula 9c; and Great Falls 9c. This will give some idea of the added cost of delivery in different towns of the state. If the article purchased was a loaf of bread which sold for 5c, it would nevertheless cost from 6½ to 10 cents to deliver, depending upon the town where the article is sold. This fact would of necessity be taken into consideration in figuring the cost of doing business, and proportionately add to the price of all commodities sold. In some of the towns a central delivery system has been adopted, which is claimed to be cheaper than maintaining a separate delivery system for each individual firm. Emphasis should be given to the fact that in any comparison of prices in the different cities and towns of the state, all conditions governing and affecting business should be taken into consideration, or any such comparison would be unjust and unfair. Market conditions and freight rates vary greatly, while rents, taxes and wages are also important.

House rent is also an important item, and it will be found in figuring the cost of living that a very substantial portion of the workman's wages is paid out for house rent, unless he is fortunate enough to own his own home. During the past two years, house rent has been exceptionally high in the industrial centers, particularly in Butte, Anaconda, Great Falls and Billings. This is largely due to the fact that much work in these cities has been in progress, giving employment to an unusually large number of men. Owing to the difference in size and character of houses and other conditions, it was found impossible to give any tabulation on this subject which would fairly represent an estimate of what the average workingman pays out for house rent generally throughout the state.

Sugar is one of the few articles of food showing a downward trend in prices. This commodity sold just prior to the last general election at approximately \$7.50 per 100 pounds. Eight months later, when it was generally conceded that the new Congress would reduce the tariff on foreign raw sugar, the price dropped to \$6 retail per 100-pound sack. Three months after the new tariff law went into effect, reducing the tariff 25%, sugar was selling in nearly all the towns of the state

at \$5.50 per hundred. Later in the summer the price was temporarily advanced by dealers during the canning and preserving season and has advanced rapidly in price since the declaration of war in Europe.

The new tariff law has doubtless had some effect in reducing the price of clothing, but we doubt that the consumer has received any noticeable benefit from this reduction. It is difficult to secure any reliable information on this subject owing to the attitude of the retail merchant, who appears to be jealously guarding every avenue of reduction in the price of ready or custom-made clothing.

We were reliably informed some months ago that a substantial reduction had been made in the manufacturer's price of clothing, especially in the higher priced grades of cloth. Complaints are common of the high cost of food commodities, but it appears the public is less concerned with the high cost of living when applied to the prices paid for wearing apparel. It is puzzling to understand why this is true. We are all more or less exacting in our dealings with the grocer or the butcher, and any ordinary person can make a fairly good estimate of the profits being made on the purchases they make. On the other hand, no one seems at all concerned with the profits made by the retail clothier, the milliner or the dealer in women's garments and high priced textile fabrics, although the opportunity for profit making is much greater in this class of merchandise than in the other. However, it is a business proposition pure and simple with all merchants, and it is not to be expected that any of them will be actuated or guided by philanthropic or unselfish motives.

As a result of a hurried investigation pertaining to this subject, we are forced to the conclusion that the prices of food commodities are forced downward by public interest and discussion, while other business has remained undisturbed by public agitation.

Will the present or higher prices prevail is a question that concerns all of the people. There may be many things that affect prices of food commodities, yet the probability is that as long as the population, emmigration and consumption increase faster than production there is little hope of a permanent lowering of prices. More people live in cities, and hence more people are dependent on purchased food. There are fewer farmers relatively to supply the products than ever before.

But these, like other economic problems which have confronted the people of all ages, will be met and solved by the American people, as they have met and overcome other difficulties. The vast industries and enterprises will not collapse. The needs of a civilized and wealthy nation will continue to exist, but means will be found to meet them.

While the necessary cost of living has materially advanced in the last few years, it must be evident to all thinking persons that there are other things that are potent factors in the increased cost of living. The foolishness and extravagance of dress, the profligate waste of money on amusements by the young and old, add largely to the expense of living. The money spent on picture shows, theatres, base-ball, to say nothing of automobiles and other amusements, constitutes a consider-

able per cent of the expenses of the average family. I do not think it an extravagant statement to make to say that the money spent on the above mentioned amusements would amount to as much as the cost of all bills for sugar, coffee and flour for all the people of the nation. The habit of extravagance has grown upon the people unconsciously, until they regard this unnecessary expense as a legitimate part of the cost of living. Therefore, while the price of commodities has advanced greatly within the last few years, the extravagant habits of the American people have kept pace with the upward tendency of prices and should be taken into consideration when an estimate is made as to the cost of living. A prosperous and contented people must live within their means, and it is just as essential in bringing about this condition that a reformation in the habits of the people be brought about, as it is that the necessities of life be lowered in price.

Everybody, including the workingman and his family, is wearing better clothes, eating a better class of food and living better generally than he did formerly, and this is another condition which is perhaps an important factor in the advanced cost of living.

Summarizing conditions, and after a careful perusal of tables published elsewhere in this volume, relating to wages of the different classes of labor in the state, all available evidence would appear to indicate that wages as a whole have not increased in the same proportion as the price of commodities and the general cost of living.

On the following pages will be found the general tables:

TABLE NO. 11—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES  
JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	BEAVERHEAD		BROADWATER			
	Dillon		Townsend		Toston	
Baking powder, lb. can	\$ .07	\$ .25	\$ .06	\$ .25	\$ .25	\$ .40
Beans, per lb. ....	.08	.08	.08	.08	.06	.10
Cove oysters, per can..	.25	.25	.20	.20	.15	.25
Blackberries, 2½ lbs..	.25	.25	.20	.25		.25
Canned cherries, can...	.25	.25	.15	.25		.25
Canned plums, can....	.20	.25	.15	.25		.15
Canned raspberries, can	.30	.25		.25		.25
Baked beans, per can..	.12½	.25	.10	.10	.12½	.25
Canned peas, per can..	.12½	.12½	.25	.15	.15	.25
Canned corn, per can..	.10	.12½	.08	.10	.10	.17½
Canned tomatoes, can..	.12½	.12½	.10	.12½	.12½	.17½
Coffee, per lb. ....	.22	.45	.25	.45	.25	.45
Condensed milk, can...	.05	.10		.10	.06	.12½
Dried apples, evap., lb.	.12	.12		.12	.12	.15
Dried apricots, evp., lb.	.16	.16		.17		.17½
Dried currants, evp., lb.	.14	.14		.12½		.15
Dried peaches, evp., lb.	.10	.10		.10		.12½
Dried pears, evp., lb...	.12	.12		.12		.15
Dried plums, per lb....	.12	.12				
Dried prunes, per lb...	.10	.10	.08	.08	.07	.12½
Dried raisins, per lb...	.10	.10	.08	.08	.08	.12½
Oatmeal crackers, pkg.	.10	.10	.10	.10	.05	.10
Soda crackers, pkg....	.05	.20	.10	.25		.25
Catsup, medium size...	.25	.25		.25		.30
Wheat flour, 98-lb. sack	2.75	3.60	2.60	2.70	2.70	2.90
Oatmeal, 9-lb. pkg....	.40	.40		.40		.45
Cornmeal, 9-lb. pkg....	.35	.35		.35		.40
Roll'd oats, per pkg...	.10	.10		.55		.60
Buckwheat flour, 9 lbs.	.60	.60		.35		.40
Graham flour, 10-lb. pk	.35	.35		.17		.20
Honey, per lb. ....	.20	.20	.07	.10	.06	.12½
Rice, per lb. ....	.07	.10		.08		.08½
Soda, per lb. ....	.08½	.08½		.02		.02½
Table salt, per lb....	.02	.02		.50		.50
Cider vinegar, gallon..	.50	.60		.40		.37½
Syrup, Log Cabin, qt...	.35	.35		.15		.18¾
Molasses, New Orl., qt.	.20	.20				
Sugar, gran., lbs. for \$1	14 lbs.	14 lbs.	16 lbs.	16 lbs.	14 lbs.	14 lbs.
Tea, per lb. ....	.40	.40	.40	.75	.50	.75
Butter, per lb. ....	.32	.45		.42		.40
Eggs, per dozen .....	.35	.50		.45	.30	.40
Cheese, Am. cream, lb..	.25	.25		.25		.30
Potatoes, per hundred.	1.25	1.25	1.25	1.25	1.50	1.50
Porterhouse steak, lb..	.28	.28		.22		.22½
Sirloin steak, lb.....	.25	.25		.22		.22½
Round steak, lb.....	.20	.20		.20		.20
Rib roast, per lb.....	.20	.20		.18		.18
Rib boil, per lb.....	.12½	.12½		.12½		.12½
Shoulder steak, per lb.	.17	.17		.18		.20
Ribs of beef, per lb....	.12½	.12½		.15		.15
Pot roast, per lb.....	.17	.17		.18		.18
Pork roast, per lb.....	.20	.20		.18		.20
Salt pork, per lb.....	.18	.18		.18		.18
Pork chops, per lb....	.20	.20		.20		.20
Hams, per lb.....	.23	.25		.20		.25
Legs pork, per lb.....	.18	.18		.18		.18
Pig's feet, per lb.....	.10	.10	.06	.08		.10
Sausage, per lb.....	.17	.17		.15		.15
Bacon, per lb.....	.25	.27		.21		.22
Legs lamb, per lb.....	.25	.25		.20		.18
Lamb chops, per lb....	.25	.25		.22		.20
Legs mutton, per lb....	.18	.18		.18		.18
Mutton chops, per lb...	.18	.18		.20		.20
Shoulder lamb, per lb..	.18	.18		.18		.15
Mutton stew, per lb....	.08	.08	.10	.12½		.12½
Loin of mutton, per lb.	.20	.20		.18		.20
Salmon, fresh, per lb...	.18	.18		.18		.18
Halibut, fresh, per lb..	.18	.18		.18		.15
Chicken, hens, per lb...	.18	.18		.18		.20
Chicken, spring, per lb.	.22	.22		.20		.22½
Turkey, per lb.....	.28	.28		.27		.30

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	BIG HORN		BLAINE		CASCADE	
	Hardin		Harlem		Belt.	
Baking powder, lb. can	\$ .08	\$ .50	\$ .08	\$ .25	.16 —	.50
Beans, per lb. ....	—	.10	—	.10	.08½ —	.10
Cove oysters, per can..		.15	.15	.25		.25
Blackberries, 2½ lbs..		.25		.25		.25
Canned cherries, can...		.25		.25		.25
Canned plums, can....		.25		.25		.25
Canned raspberries, can		.25		.25		.30
Baked beans, per can..	.15 —	.25	.15 —	.25		.15
Canned peas, per can..		.15	.12½ —	.15		.12½
Canned corn, per can..		.10	.10 —	.15	.10 —	.20
Canned tomatoes, can..		.15	.12½ —	.15	.10 —	.12½
Coffee, per lb.....	.25 —	.35	.25 —	.45	.30 —	.40
Condensed milk, can..	.05 —	.15		.10		.12½
Dried apples, evap., lb.		.12½		.15		.15
Dried apricots, evp., lb.		.17½		.20		.....
Dried currants, evp., lb.		.15		.15		.12½
Dried peaches, evp., lb.		.12½		.12½		.15
Dried pears, evp., lb..		.12½		.15		.17½
Dried plums, per lb....		.....		.10		.17½
Dried prunes, per lb...		.12½		.....	.10 —	.15
Dried raisins, per lb...		.10		.10	.10 —	.12½
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pkg....	.05 —	.25		.25		.25
Catsup, medium size...		.25		.30		.30
Wheat flour, 98-lb. sack		2.70	2.75 —	3.00		2.35
Oatmeal, 9-lb. pkg.....		.45		.55		.45
Cornmeal, 9-lb. pkg...		.35		.35		.35
Rolled oats, per pkg...		.25		.55	.25 —	.35
Buckwheat flour, 9 lbs.		.60		.65		.60
Graham flour, 10-lb. pk		.35		.....		.40
Honey, per lb. ....		.15		.....		.35
Rice, per lb. ....		.08	.10 —	.25		.08½
Soda, per lb. ....		.10		.10		.10
Table salt, per lb.....		.02		.02		.02½
Cider vinegar, gallon..		.40		.....		.60
Syrup, Log Cabin, qt...		.35		.40		.40
Molasses, New OrL., qt.		.25		.16		.17½
Sugar, gran., lbs. for \$1	14 lbs.		14 lbs.		15 lbs.	
Tea, per lb. ....		.50	.15 —	.70	.40 —	.75
Butter, per lb. ....	.30 —	.40	.30 —	.40		.35
Eggs, per dozen.....	.35 —	.40	.20 —	.40		.45
Cheese, Am. cream, lb.		.25		.....		.25
Potatoes, per hundred.		1.00		2.00		1.15
Porterhouse steak, lb..		.22½		.30		.17½
Sirloin steak, lb.....		.22½		.30		.17½
Round steak, lb.....		.20		.25		.16½
Rib roast, per lb.....		.18		.22		.15
Rib boil, per lb.....		.15		.12		.10
Shoulder steak, per lb.		.20		.25		.14
Ribs of beef, per lb...		.12½		.....		.15
Pot roast, per lb.....		.16		.18		.13
Pork roast, per lb.....		.17½		.23		.17½
Salt pork, per lb.....		.17½		.15		.15
Pork chops, per lb.....		.20		.25		.17½
Hams, per lb.....		.22	.20 —	.24		.25
Legs pork, per lb.....		.20		.20		.17½
Pig's feet, per lb.....		.15		.08		.18
Sausage, per lb.....		.15		.13		.15
Bacon, per lb.....		.25	.22 —	.32	.20 —	.25
Legs lamb, per lb.....		.20		.20		.20
Lamb chops, per lb...		.20		.25		.20
Legs mutton, per lb...		.20		.18		.16
Mutton chops, per lb...		.20		.25		.17½
Shoulder lamb, per lb..		.17½		.14		.17½
Mutton stew, per lb...		.15		.12		.12½
Loin of mutton, per lb.		.18		.20		.16½
Salmon, fresh, per lb...		.....		.18		.17½
Halibut, fresh, per lb..		.20		.18		.17½
Chicken, hens, per lb...	.18 —	.20		.25		.15
Chicken, spring, per lb.	.18 —	.20		.30		.17½
Turkey, per lb.....		.22½		.25		.25

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	CASCADE					
	Cascade		Stockett		Great Falls	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can		.35		.50	.25	.50
Beans, per lb. ....	.06	—	.10	.10	.06	.07½
Cove oysters, per can.		.25		.25		.20
Blackberries, 2½ lbs...		.25		.30		.20
Canned cherries, can...		.25		.30		.20
Canned plums, can....		.20		.20		.15
Canned raspberries, can		.35		.30	.20	.25
Baked beans, per can..	.15	—	.12½	.25	.10	.20
Canned peas, per can..		.12½		.15		.10
Canned corn, per can..		.12½		.12½		.10
Canned tomatoes, can..		.12½		.15		.10
Coffee, per lb. ....	.25	—	.20	.42½	.20	.40
Condensed milk, can...		.10		.12½	.05	.10
Dried apples, evap., lb.		.15		.12½		.12½
Dried apricots, evp., lb.		.20		.17½		.20
Dried currants, evp., lb.		.15		.15		.12½
Dried peaches, evp., lb.		.15		.12½		.10
Dried pears, evp., lb...		.16		.12½		.12½
Dried plums, per lb....		.12½		.12½		.12½
Dried prunes, per lb...		.12½		.12½	.08	.10
Dried raisins, per lb...		.12½		.12½		.10
Oatmeal crackers, pkg.		.10		.10		.08½
Soda crackers, pkg....		.25		.25	.05	.25
Catsup, medium size...		.25		.25		.20
Wheat flour, 98-lb. sack	2.00	—	2.50	3.25	2.25	2.50
Oatmeal, 9-lb. pkg.....		.45		.50		.40
Cornmeal, 9-lb. pkg...		.35		.40		.35
Rollod oats, per pkg...		.35		.35		.12½
Buckwheat flour, 9 lbs.		.60		.65		.45
Graham flour, 10-lb. pk		.35		.45		.30
Honey, per lb. ....		.20		.20		.13
Rice, per lb. ....		.08½		.08½	.06	.07½
Soda, per lb. ....		.12½		.08½		.06
Table salt, per lb. ....		.02		.50		.02½
Cider vinegar, gallon...		.40		.50		.40
Syrup, Log Cabin, qt...		.50		.75		.40
Molasses, New Orl., qt.		.20		.20		.15
Sugar, gran., lbs. for \$1		14 lbs.		12 lbs.		18 lbs.
Tea, per lb. ....		.70		.50		.35
Butter, per lb. ....	.35	—	.35	.40	.30	.37½
Eggs, per dozen.....	.35	—		.37½	.35	.40
Cheese, Am. cream, lb...		.25		.30		.22½
Potatoes, per hundred.		1.50		1.65		1.50
Porterhouse steak, lb...		.25		.22½		.25
Sirloin steak, lb.....		.25		.22½		.25
Round steak, lb.....		.22½		.20		.20
Rib roast, per lb.....		.17½		.17½		.20
Rib boil, per lb.....		.10		.12½		.15
Shoulder steak, per lb.		.17½		.17½		.17½
Ribs of beef, per lb....		.12½		.12½		.15
Pot roast, per lb.....		.15		.15		.17½
Pork roast, per lb.....		.17½	.20	.22½		.25
Salt pork, per lb.....		.20		.20		.20
Pork chops, per lb.....		.20		.25		.25
Hams, per lb.....		.22		.25		.25
Legs pork, per lb.....		.20		.20		.25
Pig's feet, per lb.....		.20		.08		.10
Sausage, per lb.....		.20		.17½		.17½
Bacon, per lb.....	.25	—	.27½	.30		.35
Legs lamb, per lb.....		.32½		.20		.25
Lamb chops, per lb....		.22½		.22½		.25
Legs mutton, per lb....		.17½		.20		.20
Mutton chops, per lb...		.20		.22½		.20
Shoulder lamb, per lb...		.15		.15		.22½
Mutton stew, per lb....		.10		.12½		.15
Loin of mutton, per lb.		.20		.20		.17½
Salmon, fresh, per lb...		.20		.20		.25
Halibut, fresh, per lb...		.17½		.17½		.20
Chicken, hens, per lb...		.20		.20		.20
Chicken, spring, per lb.		.20		.20		.20
Turkey, per lb.....		.30		.30		.30

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	CHOTEAU		CARBON		CUSTER	
	Ft. Benton		Red Lodge		Miles City	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.25	.50	.25	.25	.25	.25
Beans, per lb. ....	.06½	.08	.08½	.10	.06	.08
Cove oysters, per can..		.25		.12½		.12½
Blackberries, 2½ lbs.		.25		.25		.25
Canned cherries, can....	.25	.35		.25		.25
Canned plums, can....		.25		.20		.20
Canned raspberries, can		.30	.25	.35		.25
Baked beans, per can...	.12½	.20	.12½	.25		.10
Canned peas, per can...		.12½		.15		.12½
Canned corn, per can...		.12½		.12½		.10
Canned tomatoes, can...		.12½		.15		.12½
Coffee, per lb. ....	.25	.40	.30	.45	.20	.45
Condensed milk, can...	.05	.12½	.05	.12½		.10
Dried apples, evap., lb.		.12½		.15		.10
Dried apricots, evp., lb.		.15		.20		.15
Dried currants, evp., lb.		.12½		.15		.12½
Dried peaches, evp., lb.		.12½		.12½		.12
Dried pears, evp., lb...		.15		.15		.12
Dried plums, per lb....				.12½		
Dried prunes, per lb...		.12½		.15		.10
Dried raisins, per lb...	.10	.12½		.12½		.10
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pkg....	.05	.25	.05	.25		.05
Catsup, medium size.		.30		.25		.25
Wheat flour, 98-lb. sack	2.40	3.40	3.50	3.75	2.25	2.90
Oatmeal, 9-lb. pkg....		.45		.50		.45
Cornmeal, 9-lb. pkg...		.35		.45		.35
Rollod oats, per pkg...		.35	.12½	.40		.10
Buckwheat flour, 9 lbs.		.60		.65		.50
Graham flour, 10-lb. pk		.45		.50		.35
Honey, per lb. ....		.15		.15		.10
Rice, per lb. ....	.08	.10	.10	.12½	.06	.08
Soda, per lb. ....		.08		.08½		.08
Table salt, per lb....		.03		.02½		.01½
Cider vinegar, gallon..		.40		.60		.50
Syrup, Log Cabin, qt...		.40		.50		.40
Molasses, New Orl. qt.		.20		.20		.25
Sugar, gran., lbs. for \$1	17 lbs.		12 lbs.		18 lbs.	
Tea, per lb. ....	.50	.60		.60		.50
Butter, per lb. ....	.35	.40	.35	.42½	.35	.40
Eggs, per dozen....	.35	.40	.40	.50	.35	.40
Cheese, Am. cream, lb.		.25		.30		.20
Potatoes, per hundred.		1.50		1.00		1.25
Porterhouse steak, lb..	.25	.30		.25		.25
Sirloin steak, lb.....	.25	.30		.25		.25
Round steak, lb.....	.22½	.25		.25		.20
Rib roast, per lb.....		.13		.20		.20
Rib boil, per lb.....		.12		.15		.15
Shoulder steak, per lb.		.20		.20		.18
Ribs of beef, per lb....		.12		.15		.15
Pot roast, per lb.....	.15	.17		.17½		.18
Pork roast, per lb.....	.18	.22		.25		.20
Salt pork, per lb.....		.16		.20		.18
Pork chops, per lb....		.22		.25		.20
Hams, per lb.....	.20	.21		.22	.20	.25
Legs pork, per lb.....		.20		.25		.18
Pig's feet, per lb.....		.08		.10		.06
Sausage, per lb.....		.20		.20		.15
Bacon, per lb.....	.20	.27	.20	.25	.20	.28
Legs lamb, per lb.....		.20		.22½		.25
Lamb chops, per lb...		.20		.20	.15	.25
Legs mutton, per lb...		.20		.20	.15	.18
Mutton chops, per lb...		.20		.20	.15	.20
Shoulder lamb, per lb...		.15		.17½		.15
Mutton stew, per lb....		.10		.15		.08
Loin of mutton, per lb.		.18		.20		.18
Salmon, fresh, per lb.		.20		.22½		.18
Halibut, fresh, per lb..		.20		.20		.15
Chicken, hens, per lb.		.18		.22½	.18	.22
Chicken, spring, per lb.		.20		.22½	.20	.25
Turkey, per lb.....		.22		.25	.25	.28

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	DAWSON				DEER LODGE			
	Glendive		Wibaux		Anaconda			
	\$	\$	\$	\$	\$	\$		
Baking powder, lb. can	.25	—	.50	.25	—	.35		
Beans, per lb. ....	.07	—	.10	.07	—	.08 1/4		
Cove oysters, per can..	.15	—	.25	.25	—	.20		
Blackberries, 2 1/2 lbs			.30	.20	—	.20		
Canned cherries, can...			.30	.30		.25		
Canned plums, can.....			.30	.20		.17 1/2		
Canned raspberries, can			.30	.25		.25		
Baked beans, per can...	.15	—	.20	.20	.10	—		
Canned peas, per can...			.15	.15		.20 1/2		
Canned corn, per can...			.15	.10		.12 1/2		
Canned tomatoes, can..			.15	.12 1/2		.12 1/2		
Coffee, per lb. ....	.25	—	.40	.25	—	.45		
Condensed milk, can...	10	—	.15	.05	—	.10		
Dried apples, evap., lb.			.15	.15		.12 1/2		
Dried apricots, evp., lb.			.20	.18		.20		
Dried currants, evp., lb.			.15	.12 1/2		.15		
Dried peaches, evp., lb.			.15	.15		.12 1/2		
Dried pears, evp., lb...			.15	.15		.12 1/2		
Dried plums, per lb....	.....		.15	.15		.10		
Dried prunes, per lb...			.15	.11		.10		
Dried raisins, per lb...			.15	.15		.12 1/2		
Oatmeal crackers, pkg.			.10	.10		.10		
Soda crackers, pkg....			.10	.10	.05	—	.25	
Catsup, medium size...			.25	.25		.25		
Wheat flour, 98-lb. sack	3.00		2.50	2.90	3.25	—	3.90	
Oatmeal, 9-lb. pkg.....			.50	.40		.45		
Cornmeal, 9-lb. pkg...			.40	.30		.35		
Rolled oats, per pkg...			.25	.15	—	.35		
Buckwheat flour, 9 lbs.			.60	.60	.12 1/2	—	.65	
Graham flour, 10-lb. pk			.50	.40		.40		
Honey, per lb. ....			.25	.20		.15		
Rice, per lb. ....			.10	.08	.06	—	.10	
Soda, per lb. ....			.10	.10		.10		
Table salt, per lb. ....			.02	.02		.02		
Cider vinegar, gallon..			.40	.35		.60		
Syrup, Log Cabin, qt...			.40	.35		.40		
Molasses, New OrL, qt.			.20	.20		.20		
Sugar, gran., lbs. for \$1	15 lbs.		16 lbs.		15 lbs.			
Tea, per lb. ....			.50	.50	.40	—	.75	
Butter, per lb. ....	.30	—	.40	.35	—	.45		
Eggs, per dozen.....	.40	—	.45	.35	—	.60		
Cheese, Am. cream, lb.			.25	.25		.25		
Potatoes, per hundred.			1.75	1.50		1.50		
Porterhouse steak, lb..			.30	.25		.30		
Sirloin steak, lb.....			.28	.25		.25		
Round steak, lb.....	.20	—	.25	.25		.22		
Rib roast, per lb.....			.20	.15		.22		
Rib boil, per lb.....			.12 1/2	.08	—	.15		
Shoulder steak, per lb.			.20	.15		.17		
Ribs of beef, per lb...			.15	.10		.17		
Pot roast, per lb.....			.17 1/2	.12		.18		
Pork roast, per lb.....			.22	.11	—	.22		
Salt pork, per lb.....			.17	.15		.20		
Pork chops, per lb.....			.22	.20		.25		
Hams, per lb.....	.22	—	.30	.20	—	.24		
Legs pork, per lb.....			.20	.15		.20		
Pig's feet, per lb.....			.10	.08		.12 1/4		
Sausage, per lb.....			.17 1/2	.15		.20		
Bacon, per lb.....	.23	—	.30	.20	—	.30		
Legs lamb, per lb.....			.25	.15	.22 1/2	—	.25	
Lamb chops, per lb.....			.25	.20		.25		
Legs mutton, per lb...			.25	.15		.20		
Mutton chops, per lb...			.25	.18		.20		
Shoulder lamb, per lb..			.18	.12 1/2		.18		
Mutton stew, per lb...			.12 1/2	.10		.12 1/2		
Loin of mutton, per lb.			.27	.15		.20		
Salmon, fresh, per lb..			.20	.15	—	.20		
Halibut, fresh, per lb..			.20	.15	—	.18		
Chicken, hens, per lb.			.18	.14		.24		
Chicken, spring, per lb.			.22	.14		.25		
Turkey, per lb.....			.25	.20		.30		

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	FALLON		FERGUS			
	Ekalaka		Lewistown		Stanford	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.16	.55	.25	.50	.25	.50
Beans, per lb. ....	.07	.12½	.07	.08½	.06½	.10
Cove oysters, per can..	.12	.25		.25	.15	.25
Blackberries, 2½		.25		.30		.35
Canned cherries, can...	.30	.40		.25		.25
Canned plums, can....		.30		.20		.25
Canned raspberries, can		.30		.30		.30
Baked beans, per can..	.12½	.25		.12½	.15	.25
Canned peas, per can..		.15		.12½	.15	.20
Canned corn, per can..	.12½	.15		.10	.15	.20
Canned tomatoes, can..	.12½	.17½		.10	.15	.25
Coffee, per lb. ....	.30	.40	.20	.40	.30	.45
Condensed milk, can...	.05	.10		.12½		.12½
Dried apples, evap., lb.		.15		.16		.15
Dried apricots, evp., lb.	.20	.25		.20		.25
Dried currants, evp., lb.		.15		.12½		.15
Dried peaches, evp., lb.	.15	.18		.15		.15
Dried pears, evp., lb...				.16		.20
Dried plums, per lb....				.15		.18
Dried prunes, per lb...	.15	.20		.10	.12½	.15
Dried raisins, per lb...		.12½		.10		.15
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pkg....	.05	.25		.10	.10	.25
Catsup, medium size...	.15	.25		.25		.25
Wheat flour, 98-lb. sack	3.00	3.50	2.25	2.50		3.00
Oatmeal, 9-lb. pkg....		.30		.35		.50
Cornmeal, 9-lb. pkg...		.45		.40		.40
Rollod oats, per pkg...		.30		.12½	.25	.30
Buckwheat flour, 9 lbs.				.65		.65
Graham flour, 10-lb. pk		.50		.40		.50
Honey, per lb. ....				.20		.20
Rice, per lb. ....	.10	.12½		.07	.08	.10
Soda, per lb. ....		.10		.10		.08
Table salt, per lb. ....		.02½		.02		.02
Cider vinegar, gallon..		.50		.60		.50
Syrup, Log Cabin, qt...				.50		.50
Molasses, New OrL., qt.				.25		.25
Sugar, gran., lbs. for \$1	14½	lbs.	15	lbs.	12	lbs.
Tea, per lb. ....	.50	.80		.50	.50	.70
Butter, per lb. ....	.35	.40	.40	.45	.40	.45
Eggs, per dozen .....		.25	.35	.40	.40	.45
Cheese, Am. cream, lb..		.25		.25		.25
Potatoes, per hundred.		1.25		1.25		1.75
Porterhouse steak, lb..		.20		.25		.25
Sirloin steak, lb.....		.20		.23		.25
Round steak, lb.....		.20		.22		.25
Rib roast, per lb.....		.15		.18		.18
Rib boil, per lb.....		.10		.12½		.12½
Shoulder steak, per lb.		.15		.18		.20
Ribs of beef, per lb....		.15		.15		
Pot roast, per lb.....		.15	.15	.18		.16
Pork roast, per lb.....		.18	.20	.25	.18	.22
Salt pork, per lb.....		.18		.18		.18
Pork chops, per lb.....		.20		.25		.22
Hams, per lb.....	.24	.30	.20	.24	.20	.21
Legs pork, per lb.....		.15		.25	.15	.18
Pig's feet, per lb.....		.05		.08		.08
Sausage, per lb.....		.20	.15	.18	.15	.20
Bacon, per lb.....	.25	.30	.20	.28	.20	.28
Legs lamb, per lb.....		.20		.25		.18
Lamb chops, per lb....		.20		.22		.20
Legs mutton, per lb....		.13		.22		
Mutton chops, per lb..		.13		.25		.20
Shoulder lamb, per lb..		.15		.12½		.15
Mutton stew, per lb....		.12½	.05	.10		.10
Loin of mutton, per lb..		.18	.20	.25		.18
Salmon, fresh, per lb...		.20	.20	.25		.20
Halibut, fresh, per lb..		.20	.16	.20		.20
Chicken, hens, per lb...		.15		.22		.18
Chicken, spring, per lb.		.20		.22		.20
Turkey, per lb.....		.20		.28		.25

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	FLATHEAD				GALLATIN			
	Whitefish		Kallispell		Three Forks			
	\$	\$	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.25	—	.40	.25			.35	
Beans, per lb. ....	.08	—	.12	.10	.07½	—	.10	
Cove oysters, per can..			.25	.12½			.25	
Blackberries, 2½ lbs..			.35	.25			.25	
Canned cherries, can...	.25	—	.35	.25			.25	
Canned plums, can.....				.20			.20	
Canned raspberries, can			.35	.25			.35	
Baked beans, per can...	.12½	—	.30	.12½	.10	—	.25	
Canned peas, per can...	.15	—	.20	.15			.15	
Canned corn, per can...			.15	.15			.12½	
Canned tomatoes, can...			.15	.15			.12½	
Coffee, per lb. ....	.25	—	.40	.40	.30	—	.45	
Condensed milk, can...			.15	.10			.12½	
Dried apples, evap., lb.			.20	.12½			.16	
Dried apricots, evp., lb.			.20	.20			.18	
Dried currants, evp., lb.			.15	.15			.15	
Dried peaches, evp., lb.			.15	.12½			.12½	
Dried pears, evp., lb...			.20	.15			.15	
Dried plums, per lb....			.20				.16	
Dried prunes, per lb....			.12½	.10			.12½	
Dried raisins, per lb....			.12½	.12½			.12½	
Oatmeal crackers, pkg.			.10	.10			.10	
Soda crackers, pkg....			.10	.10	.05	—	.25	
Catsup, medium size...			.30	.30			.30	
Wheat flour, 98-lb. sack	2.75	—	3.00	1.95	—	2.85	2.80	—
Oatmeal, 9-lb. pkg.....			.45	.45			.45	
Cornmeal, 9-lb. pkg....			.40	.40			.35	
Rollod oats, per pkg...			.15	.12½	.15	—	.35	
Buckwheat flour, 9 lbs.			.65	.60			.60	
Graham flour, 10-lb. pk			.45	.40			.45	
Honey, per lb. ....			.20	.25			.20	
Rice, per lb. ....	.08	—	.10	.08½	.07½	—	.08½	
Soda, per lb. ....			.10	.08½			.10	
Table salt, per lb.....			.02	.01½				
Cider vinegar, gallon..			.50	.50			.60	
Syrup, Log Cabin, qt...			.45	.40			.40	
Molasses, New OrL., qt.			.15	.20			.20	
Sugar, gran., lbs. for \$1		13 lbs.		17 lbs.		17 lbs.		
Tea, per lb. ....			.50	.50			.70	
Butter, per lb. ....	.40	—	.45	.35	—	.40	.30	—
Eggs, per dozen.....	.45	—	.60	.40			.40	—
Cheese, Am. cream, lb..			.30	.25			.25	
Potatoes, per hundred.		1.50		1.25			1.50	
Porterhouse steak, lb..			.25	.25			.22½	
Sirloin steak, lb.....			.25	.25			.22½	
Round steak, lb.....			.20	.22½			.20	
Rib roast, per lb.....			.20	.20			.23	
Rib boll, per lb.....			.12½	.12			.20	
Shoulder steak, per lb.			.18	.20			.15	
Ribs of beef, per lb....							.18	
Pot roast, per lb.....			.18	.15	—	.17	.20	
Pork roast, per lb.....			.20	.16	—	.18	.25	
Salt pork, per lb.....			.20	.18			.20	
Pork chops, per lb.....			.20	.18			.25	
Hams, per lb.....			.30	.20			.30	
Legs pork, per lb.....			.20	.18			.22½	
Pig's feet, per lb.....			.10	.05			.12½	
Sausage, per lb.....			.17½	.15			.15	
Bacon, per lb.....			.30	.18	—	.22	.22½	
Legs lamb, per lb.....			.25				.21	
Lamb chops, per lb....			.25				.23	
Legs mutton, per lb....			.20	.22			.20	
Mutton chops, per lb...			.20	.22			.20	
Shoulder lamb, per lb..			.20	.15	—	.17	.17½	
Mutton stew, per lb....			.15	.10	—	.12	.17½	
LoIn of mutton, per lb.			.20	.25			.22	
Salmon, fresh, per lb...			.20	.17½			.20	
Halibut, fresh, per lb..			.20	.17½			.15	
Chicken, hens, per lb...			.20	.18			.17½	
Chicken, spring, per lb.			.22½	.18			.22½	
Turkey, per lb.....			.32	.28			.25	

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	GALLATIN		GRANITE	
	Bozeman	Manhattan	Philipsburg	
Baking powder, lb. can	\$.16 — \$.50	\$.25 — \$.40	\$.25 — \$.40	
Beans, per lb. ....	.06½ — .08	.08½ — .25	.06¾ — .08½	
Cove oysters, per can..	.20	.25	.20	
Blackberries, 2½ lbs..	.20	.25	.25	
Canned cherries, can...	.25	.25	.35	
Canned plums, can...	.15	.25	.20	
Canned raspberries, can	.25	.30	.25	
Baked beans, per can..	.12½ — .25	.12½ — .25	.10 — .25	
Canned peas, per can..	.10 — .20	.15	.15 — .25	
Canned corn, per can..	.10	.12½ — .12½	.12½ — .12½	
Canned tomatoes, can..	.12½ — .12½	.12½ — .12½	.12½ — .20	
Coffee, per lb. ....	.25 — .45	.30 — .45	.30 — .45	
Condensed milk, can...	.12½ — .12½	.12½ — .12½	.05 — .12½	
Dried apples, evap., lb.	.12½ — .12½	.16	.12½ — .12½	
Dried apricots, evp., lb.	.15	.17	.16¾ — .16¾	
Dried currants, evp., lb.	.15	.15	.12½ — .16¾	
Dried peaches, evp., lb.	.12½ — .12½	.12	.12½ — .12½	
Dried pears, evp., lb...	.15	.20	.12½ — .12½	
Dried plums, per lb....	.15	.....	.....	
Dried prunes, per lb....	.08	.11	.09	
Dried raisins, per lb....	.10	.12½ — .12½	.10	
Oatmeal crackers, pkg.	.10	.10	.10	
Soda crackers, pkg....	.10	.05 — .25	.25	
Catsup, medium siz	.25	.30	.25	
Wheat flour, 98-lb. sack	2.65 — 2.75	2.80 — 2.90	2.90 — 3.00	
Oatmeal, 9-lb. pkg....	.45	.45	.45	
Cornmeal, 9-lb. pk...	.35	.35	.35	
Rollad oats, per pkg...	.12½ — .12½	.35	.35	
Buckwheat flour, 9 lbs.	.60	.65	.55	
Graham flour, 10-lb. pk	.35	.35	.35	
Honey, per lb. ....	.17½ — .17½	.....	.20	
Rice, per lb. ....	.07 — .10	.08½ — .08½	.08½ — .10	
Soda, per lb. ....	.08½ — .08½	.08½ — .08½	.10	
Table salt, pe 1b. ....	.02	.02	.02	
Cider vinegar, gallon..	.50	.50	.50	
Syrup, Log Cabin, qt...	.40	.36	.37½ — .37½	
Molasses, New Orln., qt.	.15	.15	.18½ — .18½	
Sugar, gran., lbs. for \$1	15 lbs.	14 lbs.	14 lbs.	
Tea, per lb. ....	.35 — .60	.65	.40 — .75	
Butter, per lb. ....	.30 — .45	.35	.40	
Eggs, per dozen.....	.35 — .40	.42½ — .25	.35 — .50	
Cheese, Am. cream, lb.	.25	.25	.25	
Potatoes, per hundred.	1.00	1.00	1.50	
Porterhouse steak, lb..	.25	.23	.25	
Sirloin steak, lb.....	.22½ — .23	.23	.22	
Round steak, lb.....	.20	.20	.20	
Rib roast, per lb.....	.20	.15	.18	
Rib boil, per lb.....	.12½ — .12½	.12½ — .12½	.12½ — .12½	
Shoulder steak, per lb.	.17½ — .17½	.18	.15	
Ribs of beef, per lb...	.20	.15	.13	
Pot roast, per lb.....	.17	.15	.17 — .18	
Pork roast, per lb.....	.20	.20	.18 — .20	
Salt pork, per lb.....	.....	.18	.17	
Pork chops, per lb....	.20	.20	.20	
Hams, per lb.....	.24	.23	.23	
Legs pork, per lb.....	.20	.20	.20	
Pig's feet, per lb.....	.10	.....	.12½ — .12½	
Sausage, per lb.....	.18	.17	.15	
Bacon, per lb.....	.26 — .28	.24 — .30	.22 — .25	
Legs lamb, per lb.....	.20	.23	.20	
Lamb chops, per lb....	.25	.20	.22	
Legs mutton, per lb....	.20	.20	.18	
Mutton chops, per lb..	.20	.18	.15 — .20	
Shoulder lamb, per lb..	.17½ — .17½	.18	.18	
Mutton stew, per lb...	.10 — .12½	.12½ — .12½	.10	
Loin of mutton, per lb.	.20	.18	.20	
Salmon, fresh, per lb...	.20	.20	.20	
Halibut, fresh, per lb..	.20	.20	.18	
Chicken, hens, per lb...	.25	.21	.23	
Chicken, spring, per lb.	.25	.21	.25	
Turkey, per lb.....	.27	.25	.30	

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	HILL				JEFFERSON	
	Havre		Chester		Boulder	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can		.25	.25	.50	.25	.35
Beans, per lb. ....	.08	.10	.08	.10	.07	.10
Cove oysters, per can..		.25	.12½	.25		.25
Blackberries, 2½ lbs..		.25		.25		.25
Canned cherries, can...		.25		.25		.25
Canned plums, can....		.20		.20		.25
Canned raspberries, can		.25		.25		.30
Baked beans, per can..		.25	.08½	.25		.15
Canned peas, per can..		.12½		.12½		.15
Canned corn, per can..		.10		.10		.10
Canned tomatoes, can..		.12½	.12½	.20		.12½
Coffee, per lb. ....	.25	.45	.30	.45	.25	.45
Condensed milk, can...		.10	.05	.12½		.10
Dried apples, evap., lb.		.15		.14		.13
Dried apricots, evp., lb.		.20		.20		.15
Dried currants, evp., lb.		.15		.12½		.10
Dried peaches, evp., lb.		.12½				.12½
Dried pears, evp., lb....		.15				.12½
Dried plums, per lb....		.15				.10
Dried prunes, per lb....		.10		.12½		.07
Dried raisins, per lb....		.10	.10	.15		.10
Oatmeal crackers, pkg.		.10		.45		.10
Soda crackers, pkg....		.10		.10		.25
Catsup, medium size...		.25	.25	.30		.25
Wheat flour, 98-lb. sack	2.50	3.00	2.50	3.00	3.00	3.20
Oatmeal, 9-lb. pkg.....		.45		.45		.45
Cornmeal, 9-lb. pkg....		.40		.40		.35
Rollod oats, per pkg....		.15		.12½		.20
Buckwheat flour, 9 lbs.		.65		.65		.45
Graham flour, 10-lb. pk		.45		.45		.35
Honey, per lb. ....		.25		.30		.25
Rice, per lb. ....	.08	.12½	.08	.10	.10	.12½
Soda, per lb. ....		.08½		.08		.10
Table salt, per lb. ....		.02		.02		.02
Cider vinegar, gallon..		.50		.50		.50
Syrup, Log Cabin, qt....		.45				.35
Molasses, New OrL., qt.		.20		.15		.20
Sugar, gran., lbs. for \$1	16 lbs.		15 lbs.		14 lbs.	
Salt, per lb. ....	.35	.60	.45	.70	.35	.50
Butter, per lb. ....	.35	.40	.35	.45	.35	.40
Eggs, per dozen.....	.35	.40		.40	.40	.50
Cheese, Am. cream, lb.		.25		.25		.25
Potatoes, per hundred.		1.75		1.50		1.25
Porterhouse steak, lb..		.30		.27		.25
Sirloin steak, lb.....		.30		.27		.22
Round steak, lb.....		.25		.25		.20
Rib roast, per lb.....		.20		.22		.20
Rib boil, per lb.....		.14	.12	.15		.12½
Shoulder steak, per lb.		.20		.22		.17½
Ribs of beef, per lb....		.15	.15	.17	.15	.12½
Pot roast, per lb.....		.15	.17	.18	.18	.17½
Pork roast, per lb.....		.20	.18	.22	.18	.20
Salt pork, per lb.....		.18		.18	.12½	.18
Pork chops, per lb.....		.20		.25		.20
Hams, per lb. ....	.20	.25	.22	.25	.20	.24
Legs pork, per lb.....		.20				.20
Pig's feet, per lb.....		.15		.15		.10
Sausage, per lb.....		.17		.20		.15
Bacon, per lb. ....	.20	.30		.25	.22	.25
Legs lamb, per lb.....				.20		.20
Lamb chops, per lb....				.22		.20
Legs mutton, per lb....		.15		.20		.18
Mutton chops, per lb..		.20		.22		.18
Shoulder lamb, per lb..						.17½
Mutton stew, per lb....		.12½		.10		.08
Loin of mutton, per lb.		.18		.20		.18
Salmon, fresh, per lb...		.18		.20		.20
Halibut, fresh, per lb..		.18		.20		.17½
Chicken, hens, per lb...	.18	.20				.20
Chicken, spring, per lb.		.20				.22½
Turkey, per lb.....	.20	.23				.30

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	JEFFERSON		LINCOLN			
	Whitehall		Eureka		Libby	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.16	.40	.25		.25	.40
Beans, per lb.	.07	.08 1/2	.10			.08
Cove oysters, per can.	.12 1/2	.25	.12 1/2			.25
Blackberries, 2 1/2 lbs.	.20	.25	.25			.30
Canned cherries, can.	.20	.25	.20			.30
Canned plums, can.		.20	.25			.25
Canned raspberries, can		.25	.25			.30
Baked beans, per can.	.12 1/2	.25	.25		.12 1/2	.30
Canned peas, per can.	.12 1/2	.17 1/2	.12 1/2		.12 1/2	.17 1/2
Canned corn, per can.	.10	.17 1/2	.10		.12 1/2	.17 1/2
Canned tomatoes, can.		.12 1/2	.12 1/2			.12 1/2
Coffee, per lb.	.30	.50	.25		.33 1/3	.45
Condensed milk, can.	.05	.12 1/2	.12 1/2			.10
Dried apples, evap., lb.		.12 1/2	.12 1/2			.12 1/2
Dried apricots, evp., lb.		.17 1/2	.17 1/2			.20
Dried currants, evp., lb.		.12 1/2	.15			.12 1/2
Dried peaches, evp., lb.		.12 1/2	.12 1/2			.12 1/2
Dried pears, evp., lb.		.12 1/2	.15			.17 1/2
Dried plums, per lb.			.15			
Dried prunes, per lb.	.10	.12 1/2	.08			.12 1/2
Dried raisins, per lb.		.12 1/2	.10			.12 1/2
Oatmeal crackers, pkg.		.10	.10			.10
Soda crackers, pkg.	.05	.25	.10			.10
Catsup, medium size.		.25	.35			.30
Wheat flour, 98-lb. sack	2.80	3.00	2.50	2.90	2.75	3.15
Oatmeal, 9-lb. pkg.		.50	.50			.45
Cornmeal, 9-lb. pkg.		.35	.40			.35
Rolled oats, per pkg.		.12 1/2	.12 1/2			.35
Buckwheat flour, 9 lbs.		.60	.60			.50
Graham flour, 10-lb. pk		.40	.40			.40
Honey, per lb.		.20	.20			.20
Rice, per lb.		.10	.08		.08 1/3	.12 1/2
Soda, per lb.		.10	.08			.08 1/3
Table salt, per lb.		.02	.03			.03
Cider vinegar, gallon.		.60	.60			.40
Syrup, Log Cabin, qt.		.40	.50			.40
Molasses, New Orl., qt.		.20	.20			.20
Sugar, gran., lbs. for \$1		15 lbs.		13 lbs.		13 lbs.
Tea, per lb.	.50	.75	.45			.65
Butter, per lb.	.35	.40	.40		.40	.42 1/2
Eggs, per dozen.	.40	.45	.45		.40	.50
Cheese, Am. cream, lb.		.30	.25			.25
Potatoes, per hundred.		1.25	1.50			1.50
Porterhouse steak, lb.		.27	.20			.28
Sirloin steak, lb.		.27	.20			.25
Round steak, lb.		.22	.20			.22
Rib roast, per lb.		.18	.17 1/2			.20
Rib boil, per lb.		.13	.15		.14	.15
Shoulder steak, per lb.		.20	.18		.18	.20
Ribs of beef, per lb.		.18				.15
Pot roast, per lb.		.15	.15		.15	.18
Pork roast, per lb.		.18	.17 1/2		.18	.20
Salt pork, per lb.		.18	.15		.16	.20
Pork chops, per lb.		.22	.17 1/2			.22 1/2
Hams, per lb.	.22	.25				.22
Legs pork, per lb.		.18	.17 1/2			.20
Pig's feet, per lb.		.12 1/2	.06			.10
Sausage, per lb.		.15	.15			.18
Bacon, per lb.	.23	.30				.25
Legs lamb, per lb.		.18	.20			.20
Lamb chops, per lb.		.20	.20			.22
Legs mutton, per lb.		.15	.20		.18	.20
Mutton chops, per lb.		.18	.20			.20
Shoulder lamb, per lb.		.15	.15			.18
Mutton stew, per lb.		.12 1/2	.12 1/2			.15
Loin of mutton, per lb.		.18	.20			.20
Salmon, fresh, per lb.		.20	.18		.18	.20
Halibut, fresh, per lb.		.20	.18			.18
Chicken, hens, per lb.		.18	.18			.20
Chicken, spring, per lb.		.22	.20			.20
Turkey, per lb.		.27				.30

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	LEWIS & CLARK				MADISON			
	Helena		East Helena		Twin Bridges			
	\$	\$	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.25	.50	.25	.40			.40	
Beans, per lb. ....		.08½	.06	.08			.08½	
Cove oysters, per can..	.....			.20			.25	
Blackberries, 2½ lbs..		.20		.25			.25	
Canned cherries, can...		.25		.25			.25	
Canned plums, can....		.15		.15			.25	
Canned raspberries, can		.25		.25			.30	
Baked beans, per can..		.25	.12½	.22½			.25	
Canned peas, per can..		.10		.12½			.12½	
Canned corn, per can..		.10		.12½			.12½	
Canned tomatoes, can..		.12½		.12½			.12½	
Coffee, per lb. ....	.25	.45	.25	.45	.25		.45	
Condensed milk, can...		.12½	.05	.12½			.12½	
Dried apples, evap., lb.		.15		.15			.10	
Dried apricots, evp., lb.		.20		.15			.15	
Dried currants, evp., lb.		.12½		.12½			.12½	
Dried peaches, evp., lb.		.10		.10			.12½	
Dried pears, evp., lb...		.15		.12½			.12½	
Dried plums, per lb....		.15						
Dried prunes, per lb...		.10	.10	.15			.12½	
Dried raisins, per lb...		.10		.10			.10	
Oatmeal crackers, pkg.		.10		.10			.10	
Soda crackers, pkg....	.10	.25		.10			.20	
Catsup, medium size...		.25		.25			.25	
Wheat flour, 98-lb. sack		2.90	2.75	3.75	3.00		3.50	
Oatmeal, 9-lb. pkg....		.45		.40			.45	
Cornmeal, 9-lb. pkg...		.35		.30			.35	
Rollod oats, per pkg...		.12½		.12½			.35	
Buckwheat flour, 9 lbs.		.60		.60			.75	
Graham flour, 10-lb. pk		.35		.40			.35	
Honey, per lb. ....		.17½		.17½			.20	
Rice, per lb. ....	.08	.10	.08½	.12½			.08½	
Soda, per lb. ....		.08½		.08½			.10	
Table salt, per lb. ....		.01½		.02			.02	
Cider vinegar, gallon..		.50		.40			.50	
Syrup, Log Cabin, qt...		.40		.35			.40	
Molasses, New OrL., qt.		.20		.15			.20	
Sugar, gran., lbs. for \$1		15 lbs.		14 lbs.			12 lbs.	
Tea, per lb. ....	.50	.75	.50	.75			.60	
Butter, per lb. ....	.35	.45	.30	.35			.40	
Eggs, per dozen.....		.50	.35	.50	.40		.45	
Cheese, Am. cream, lb..		.30		.25			.25	
Potatoes, per hundred.		1.25		1.25			1.25	
Porterhouse steak, lb..		.30		.22			.25	
Sirloin steak, lb.....		.25		.20			.25	
Round steak, lb.....		.20		.18			.20	
Rib roast, per lb.....		.23		.18			.18	
Rib boil, per lb.....		.15		.12½			.14	
Shoulder steak, per lb.		.18		.16			.17½	
Ribs of beef, per lb....		.15		.18			.17	
Pot roast, per lb.....		.18	.15	.18			.18	
Pork roast, per lb.....		.20		.18			.20	
Salt pork, per lb.....		.18		.15			.18	
Pork chops, per lb.....		.20		.20	.18		.20	
Hams, per lb.....	.28	.30	.18	.22	.22		.24	
Legs pork, per lb.....		.18		.20			.20	
Pig's feet, per lb.....		.08		.10			.10	
Sausage, per lb.....		.18		.15			.15	
Bacon, per lb.....	.22	.30	.20	.22			.23	
Legs lamb, per lb.....		.30		.22			.20	
Lamb chops, per lb....		.30		.22			.20	
Legs mutton, per lb....		.20		.18			.18	
Mutton chops, per lb...		.20		.18			.20	
Shoulder lamb, per lb..		.20		.15			.17½	
Mutton stew, per lb...		.10		.12½			.10	
Loin of mutton, per lb..		.20		.17			.20	
Salmon, fresh, per lb...		.20		.22				
Halibut, fresh, per lb..		.20		.18				
Chicken, hens, per lb...		.20		.24			.20	
Chicken, spring, per lb.		.25		.35			.20	
Turkey, per lb.....		.30		.28			.25	

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	MADISON		MEAGHER			
	Virginia City		Harlowton		White Sulphur Springs	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.25	.50	.15	.50		.25
Beans, per lb. ....	.06 1/4	.10		.07	.07	.10
Cove oysters, per can..		.25	.15	.25		.25
Blackberries, 2 1/2 lbs..		.25		.30		.25
Canned cherries, can...		.25		.25		.25
Canned plums, can...		.20		.20		.20
Canned raspberries, can		.30	.25	.35		.25
Baked beans, per can..		.25	.10	.25		.10
Canned peas, per can..		.12 1/2	.12 1/2	.20		.12 1/2
Canned corn, per can..		.12 1/2	.10	.20		.10
Canned tomatoes, can..	.12 1/2	.20	.10	.25		.12 1/2
Coffee, per lb. ....	.30	.45	.30	.40	.30	.42 1/2
Condensed milk, can...		.12 1/2	.05	.12 1/2		.10
Dried apples, evap., lb.		.16 2/3		.12 1/2		.15
Dried apricots, evp., lb.		.20		.20		.20
Dried currants, evp., lb.		.15		.12 1/2		.15
Dried peaches, evp., lb.		.15		.13		.10
Dried pears, evp., lb...		.15		.14		.12 1/2
Dried plums, per lb....		.15		.12 1/2		.12 1/2
Dried prunes, per lb...	.12 1/2	.15		.12 1/2		.12 1/2
Dried raisins, per lb...		.10		.10		.10 1/2
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pke		.10	.10	.25		.05
Catsup, medium size...		.25	.15	.20		.25
Wheat flour, 98-lb. sack	2.90	3.00	2.60	2.75	2.65	2.80
Oatmeal, 9-lb. pkg....		.45		.50		.45
Cornmeal, 9-lb. pkg....		.35		.35		.40
Rolled oats, per pkg. 1/2		.12 1/2		.12 1/2		.12 1/2
Buckwheat flour, 9 lbs.		.60		.55		.65
Graham flour, 10-lb. pk		.40		.40		.50
Honey, per lb. ....		.20	.15	.25		.20
Rice, per lb. ....	.08 1/3	.10		.07	.08	.10
Soda, per lb. ....		.08 1/3		.10		.08 1/3
Table salt, per lb. ....		.02 1/2		.02		.02
Cider vinegar, gallon..		.60		.50		.50
Syrup, Log Cabin, qt...		.37 1/2		.50		.40
Molasses, New OrL., qt.		.20		.20		.35
Sugar, gran., lbs. for \$1		15 lbs.		15 lbs.		14 lbs.
Tea, per lb. ....	.40	.60	.50	.65		.45
Butter, per lb. ....	.40	.42 1/2	.35	.40	.35	.45
Eggs, per dozen.....	.40	.60	.30	.35	.45	.50
Cheese, Am. cream, lb.		.25		.25		.25
Potatoes, per hundred.		1.25		1.25		1.50
Porterhouse steak, lb..		.25		.22 1/2		.30
Sirloin steak, lb....		.22		.22 1/2		.28
Round steak, lb.....		.18		.20		.25
Rib roast, per lb.....		.18		.18		.25
Rib boil, per lb.....		.15		.10		.17
Shoulder steak, per lb.		.18		.17 1/2		.22
Ribs of beef, per lb....		.15		.12 1/2		.18
Pot roast, per lb.....	.15	.18		.15		.20
Pork roast, per lb.....	.18	.20	.18	.20		.20
Salt pork, per lb.....		.18	.12 1/2	.17 1/2		.24
Pork chops, per lb.....		.20		.22		.25
Hams, per lb.....		.22	.20	.22	.20	.26
Legs pork, per lb.....		.18		.20		.20
Pig's feet, per lb.....		.08		.12 1/2		.20
Sausage, per lb.....		.18	.08	.20		.20
Bacon, per lb.....		.22	.18	.30	.24	.28
Legs lamb, per lb.....		.20		.17 1/2		.25
Lamb chops, per lb....		.22		.20		.25
Legs mutton, per lb....		.20		.15		.20
Mutton chops, per lb...		.20		.17 1/2		.20
Shoulder lamb, per lb..		.16		.15		.18
Mutton stew, per lb....		.12 1/2		.10		.06
LoIn of mutton, per lb		.20		.17 1/2		.25
Salmon, fresh, per lb...				.18		.20
Halibut, fresh, per lb..				.18		.20
Chicken, hens, per lb...				.20		.20
Chicken, spring, per lb.		.25		.25		.20
Turkey, per lb.....		.28		.25		.28

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	MISSOULA				MUSSELSHELL			
	Missoula		St. Ignatius		Roundup			
	\$	\$	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.25	.40	.25	.50			.15	
Beans, per lb. ....	.08½	.12½	.08½	.10	.07		.08	
Cove oysters, per can..	.20	.40		.25			.25	
Blackberries, 2½ lbs..		.25		.25			.25	
Canned cherries, can...		.25		.20			.25	
Canned plums, can.....		.20		.20			.20	
Canned raspberries, can		.25		.25			.25	
Baked beans, per can..	.12½	.25		.12½			.15	
Canned peas, per can..	.12½	.25		.15			.12½	
Canned corn, per can..		.12½		.12½			.10	
Canned tomatoes, can..		.12½		.12½			.12½	
Coffee, per lb. ....	.30	.45	.25	.40			.35	
Condensed milk, can...	.05	.12½		.12	.25		.10	
Dried apples, evap., lb.		.15		.12½			.12½	
Dried apricots, evp., lb.		.20		.16½			.17	
Dried currants, evp., 1		.15		.15			.12½	
Dried peaches, evp., lb.		.12½		.12½			.12	
Dried pears, evp., lb...		.15		.12½			.17	
Dried plums, per lb....		.15					.15	
Dried prunes, per 1		.12½		.12½			.10	
Dried raisins, per lb...		.12½		.12½			.08	
Oatmeal crackers, pkg.		.10		.10			.10	
Soda crackers, pkg....	.05	.25	.05	.25			.10	
Catsup, medium size...	.15	.30		.35			.25	
Wheat flour, 98-lb. sack	2.75	3.75	2.50	3.00	2.50		2.75	
Oatmeal, 9-lb. pkg.....		.45		.40			.45	
Cornmeal, 9-lb. pkg....		.35		.35			.35	
Rolled oats, per pkg...	.12½	.35	.12½	.35			.35	
Buckwheat flour, 9 lbs.	.60	.75		.45			.65	
Graham flour, 10-lb. pk		.40		.40			.35	
Honey, per lb. ....		.20		.20			.20	
Rice, per lb. ....	.08½	.12½		.08½	.08		.10	
Soda, per lb. ....		.10		.10			.08	
Table salt, per lb.....		.03		.02			.02	
Cider vinegar, gallon..		.40	.40	.75			.35	
Syrup, Log Cabin, qt...		.40		.45			.40	
Molasses, New OrL., qt.		.25		.20			.20	
Sugar, gran., lbs. for \$1	14 lbs.		14 lbs.		15 lbs.			
Tea, per lb. ....	.50	.75	.50	.60			.50	
Butter, per lb. ....	.35	.45	.40	.45	.30		.37½	
Eggs, per dozen.....	.40	.50	.40	.45	.35		.40	
Cheese, Am. cream, lb.		.25		.25			.25	
Potatoes, per hundred.		1.25		1.25			1.15	
Porterhouse steak, lb..		.30		.22½			.25	
Sirloin steak, lb.....		.25		.22½			.25	
Round steak, lb.....		.22		.17½			.20	
Rib roast, per lb.....		.22		.17½			.20	
Rib boil, per lb.....		.12½		.12½			.15	
Shoulder steak, per lb.		.17½		.15			.18	
Ribs of beef, per lb...		.17½		.12½			.18	
Pot roast, per lb.....		.18		.15			.18	
Pork roast, per lb....		.20		.15			.22½	
Salt pork, per lb.....		.20		.16½			.18	
Pork chops, per lb....	.20	.25		.20			.22½	
Hams, per lb. ....	.22	.24	.23	.25	.18		.20	
Legs pork, per lb.....		.20		.18			.22½	
Pig's feet, per lb.....		.10		.10			.10	
Sausage, per lb.....		.20		.20			.18	
Bacon, per lb.....	.25	.30	.25	.35	.25		.32	
Legs lamb, per lb.....		.22		.20				
Lamb chops, per lb....		.25		.25				
Legs mutton, per lb...		.20		.20			.20	
Mutton chops, per lb...	.20	.25					.20	
Shoulder lamb, per 1'		.17½		.15			.18	
Mutton stew, per lb...		.12½		.12½			.10	
Loin of mutton, per lb.		.25		.25			.20	
Salmon, fresh, per lb...	.20	.22½		.20			.20	
Halibut, fresh, per lb..		.20		.20			.18	
Chicken, hens, per 1		.22		.13			.20	
Chicken, spring, per lb.		.25		.15			.22½	
Turkey, per lb.....		.30		.25			.28	

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	POWELL		PARK			
	Deer Lodge		Livingston		Clyde Park	
Baking powder, lb. can	\$	\$ .15	\$	\$ .25	\$	\$ .75
Beans, per lb. ....	.06	— .08½		.10		.08
Cove oysters, per can.		.12½		.25		.20
Blackberries, 2½ l		.25		.30		.35
Canned cherries, can...		.25		.25		.40
Canned plums, can....		.25		.30		.45
Canned raspberries, can		.25		.30		.35
Baked beans, per can..		.12½		.25		.20
Canned peas, per can..		.12½		.15		.15
Canned corn, per can..	.10	— .12½		.12½		.15
Canned tomatoes, can..		.10		.15		.15
Coffee, per lb.....	.25	— .35	.30	— .45	.35	— .50
Condensed milk, can...		.05		.12½		.20
Dried apples, evap., lb.		.12½		.15		.20
Dried apricots, evp., lb.		.16		.17½		.28
Dried currants, evp., l		.12½		.15		.15
Dried peaches, evp., lb.		.12½		.12½		.25
Dried pears, evp., lb...		.15		.15		.....
Dried plums, per lb...		.15		.17½		.....
Dried prunes, per lb...		.12½		.12½		.20
Dried raisins, per lb...		.12½		.10		.20
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pkg...		.10		.25		.10
Catsup, medium size...		.25		.30		.35
Wheat flour, 98-lb. sack	2.35	— 3.00	3.00	— 3.60	3.00	— 3.50
Oatmeal, 9-lb. pkg...		.45		.45		.75
Cornmeal, 9-lb. pkg...		.35		.40		.50
Rollod oats, per pkg...		.12½		.12½		.35
Buckwheat flour, 9 lbs.		.55		.65		.....
Graham flour, 10-lb. pk		.40		.50		.50
Honey, per lb. ....		.25		.17½		.30
Rice, per lb. ....	.08½	— .12½	.10	— .12½	.12½	— .15
Soda, per lb. ....		.08½		.10		.10
Table salt, per lb. ....		.02		.01		.03
Cider vinegar, gallon..		.60	.50	— .60		.50
Syrup, Log Cabin, qt...		.40		.50		.70
Molasses, New Orl., qt.		.20		.20		.25
Sugar, gran., lbs. for \$1		16 lbs.		14 lbs.		11 lbs.
Tea, per lb. ....		.35	.50	— .60		.50
Butter, per lb. ....	.30	— .45	.35	— .45	.35	— .40
Eggs, per dozen.....	.35	— .50	.35	— .45		.30
Cheese, Am. cream, lb..		.25		.30		.30
Potatoes, per hundred.		1.50		1.25		.80
Porterhouse steak, lb..		.25		.25		.17½
Sirloin steak, lb.....		.22		.22		.17½
Round steak, lb.....		.20		.20		.17½
Rib roast, per lb.....		.17		.18		.15
Rib boil, per lb.....	.11	— .12½		.12½		.15
Shoulder steak, per lb.		.15		.18		.15
Ribs of beef, per lb...		.16		.16		.20
Pot roast, per lb.....	.15	— .17		.16		.15
Pork roast, per lb.....	.18	— .25	.18	— .20		.18
Salt pork, per lb.....		.20		.19		.15
Pork chops, per lb.....	.20	— .25		.20		.20
Hams, per lb.....	.20	— .22	.22	— .26	.22	— .25
Legs pork, per lb.....	.20	— .25		.18		.18
Pig's feet, per lb.....		.12½		.07		.15
Sausage, per lb.....		.15		.15		.20
Bacon, per lb.....	.20	— .25	.24	— .28	.25	— .28
Legs lamb, per lb.....		.20		.22½		.15
Lamb chops, per lb.....	.20	— .25		.22½		.20
Legs mutton, per lb...		.15		.20		.13
Mutton chops, per lb...		.15		.20		.15
Shoulder lamb, per		.15		.15		.12½
Mutton stew, per lb...		.08		.10		.10
Loin of mutton, per lb.		.15		.18		.15
Salmon, fresh, per lb...		.17½		.20		.17½
Halibut, fresh, per lb...		.17½		.20		.17½
Chicken, hens, per lb...		.22		.20		.20
Chicken, spring, per lb.		.25		.22		.25
Turkey, per lb.....		.30		.25		.25

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES.	PARK				RAVALLI			
	Gardiner		Wilsall		Hamilton			
	\$	\$	\$	\$	\$	\$		
Baking powder, lb. can		.30		.25		.25		
Beans, per lb. ....	.08½ —	.10	.07 —	.10	.06½ —	.10		
Cove oysters, per can..		.20		.25	.12½ —	.25		
Blackberries, 2½ lbs.		.25		.25		.25		
Canned cherries, can...		.25		.25		.25		
Canned plums, can....		.20		.20		.20		
Canned raspberries, can		.20		.25		.25		
Baked beans, per can..		.20		.20	.12½ —	.25		
Canned peas, per can..		.12½		.15	.12½ —	.25		
Canned corn, per can..		.10		.15	.10 —	.17½		
Canned tomatoes, can..		.12½		.12½	.12½ —	.20		
Coffee, per lb. ....	.27½ —	.40	.27½ —	.45	.30 —	.40		
Condensed milk, can...		.10		.12½	.10 —	.12½		
Dried apples, evap., lb.		.12½		.15		.10		
Dried apricots, evp., lb.		.17½		.18		.17½		
Dried currants, evp., lb.		.12½		.15		.12½		
Dried peaches, evp., lb.		.12½		.11½		.12½		
Dried pears, evp., lb....		.12½		.17½		.15		
Dried plums, per lb....		.12½		.17½		.15		
Dried prunes, per lb...		.10		.11½				
Dried raisins, per lb...		.12½		.12½	.10 —	.12½		
Oatmeal crackers, pkg.		.10		.10		.10		
Soda crackers, pkg....		.25		.25	.10 —	.25		
Catsup, medium size...		.30		.25		.30		
Wheat flour, 98-lb. sack		2.65	2.75 —	2.85	2.25 —	2.50		
Oatmeal, 9-lb. pkg....		.45		.50		.45		
Cornmeal, 9-lb. pkg...		.40		.35		.40		
Rollod oats, per pkg...		.12½		.33½	.12½ —	.35		
Buckwheat flour, 9 lbs.		.60		.60		.65		
Graham flour, 10-lb. pk		.45		.40		.40		
Honey, per lb. ....		.20		.20		.15		
Rice, per lb. ....	.08½ —	.12½	.08½ —	.10	.08½ —	.10		
Soda, per lb. ....		.10		.08½		.08½		
Table salt, per lb....		.02		.02		.02		
Cider vinegar, gallon..		.50		.40		.40		
Syrup, Log Cabin, qt...		.65		.40		.40		
Molasses, New Orl., qt.		.17½		.20		.20		
Sugar, gran., lbs. for \$1	14 lbs.	.50	13 lbs.	.50	14 lbs.	.75		
Tea, per lb. ....		.30	.32½ —	.40	.25 —	.42½		
Butter, per lb. ....	.35 —	.40		.35	.35 —	.40		
Eggs, per dozen.....		.25		.22½	.25 —	.30		
Cheese, Am. cream, lb..		1.25		1.25		1.00		
Potatoes, per hundred.		.25		.27		.30		
Porterhouse steak, lb..		.22		.20		.22		
Sirloin steak, lb.....		.18		.20		.20		
Round steak, lb.....		.18		.18		.20		
Rib roast, per lb.....		.10		.12		.12½		
Rib boil, per lb.....		.15		.20		.17½		
Shoulder steak, per lb.		.15		.18		.17½		
Ribs of beef, per lb....	.15 —	.18		.15		.15		
Pot roast, per lb.....		.20		.15		.20		
Pork roast, per lb.....	.16 —	.20		.20		.20		
Salt pork, per lb.....		.20		.20		.18		
Pork chops, per lb....		.20		.20		.22		
Hams, per lb. ....		.20	.22 —	.30	.25 —	.30		
Legs pork, per lb.....		.20		.12½		.20		
Pig's feet, per lb.....		.08		.05		.12½		
Sausage, per lb.....		.12½		.20		.17½		
Bacon, per lb. ....		.22	.23 —	.35	.25 —	.32½		
Legs lamb, per lb.....	.20 —	.22		.12½		.30		
Lamb chops, per lb....		.22		.15		.27½		
Legs mutton, per lb....	.20 —	.22		.12½		.22		
Mutton chops, per lb...		.22		.15		.20		
Shoulder lamb, per lb..	.15 —	.18		.15		.22		
Mutton stew, per lb....		.10		.10		.10½		
Loin of mutton, per lb.		.20		.12		.22		
Salmon, fresh, per lb...						.20		
Halibut, fresh, per lb..						.17½		
Chicken, hens, per lb...	.18 —	.22		.11½		.18		
Chicken, spring, per lb.	.20 —	.28		.12½		.20		
Turkey, per lb.....				.20		.30		

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES	ROSEBUD		SANDERS			
	Forsyth		Plains		Thompson Falls	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can	.25	.50	.25	.35	.16	.50
Beans, per lb	.07	.10		.06 1/4	.08	.09
Cove oysters, per can.	.12 1/2	.25		.25	.12 1/2	.25
Blackberries, 2 1/2 lbs.		.25		.22 1/2	.25	.35
Canned cherries, can.		.25		.20	.25	.35
Canned plums, can.		.20				.20
Canned raspberries, can		.35		.20	.25	.35
Baked beans, per can.	.10	.20	.10	.15	.12 1/2	.20
Canned peas, per can.		.12 1/2		.15	.12 1/2	.25
Canned corn, per can.		.10		.10	.12 1/2	.17 1/2
Canned tomatoes, can.		.12 1/2		.12 1/2	.12 1/2	.25
Coffee, per lb.	.25	.45	.25	.40	.25	.45
Condensed milk, can.	.05	.10		.10	.10	.12 1/2
Dried apples, evap. lb.		.14				.12 1/2
Dried apricots, evp. lb.		.13		.15		.17 1/2
Dried currants, evp. lb.		.12 1/2		.15		.12 1/2
Dried peaches, evp. lb.		.10		.12 1/2		.12 1/2
Dried pears, evp., lb.		.15		.15		.12 1/2
Dried plums, per lb.		.12 1/2				
Dried prunes, per lb.		.10		.12 1/2		.12 1/2
Dried raisins, per lb.		.10		.10	.10	.12 1/2
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pkg.		.10		.10		.10
Catsup, medium size.	.10	.25	.10	.20	.10	.25
Wheat flour, 98-lb. sack		.30		.25		.25
Oatmeal, 9-lb. pkg.	2.35	2.95	2.90		3.00	3.50
Cornmeal, 9-lb. pkg.		.40		.40		.45
Rollod oats, per pkg.		.35		.30		.35
Buckwheat flour, 9 lbs.	.10	.12 1/2	.15	.30	.12 1/2	.35
Graham flour, 10-lb. pk		.60				.60
Honey, per lb.		.35				.40
Rice, per lb.		.15		.25	.20	.25
Soda, per lb.	.08	.10	.06 1/4	.08 1/2	.08 1/2	.10
Table salt, per lb.		.10		.10		.08 1/2
Cider vinegar, gallon.		.02		.03		.03
Syrup, Log Cabin, qt.		.50		.30	.50	.60
Molasses, New Orln., qt.		.40				.45
Sugar, gran., lbs. for \$1		.25		.25		.20
Tea, per lb.	15 lbs.		15 lbs.		15 lbs.	
Butter, per lb.	.35	.60		.35	.30	.75
Eggs, per dozen	.30	.37 1/2	.40	.45	.35	.40
Cheese, Am. cream, lb.	.35	.45		.50	.35	.50
Potatoes, per hundred.		.22		.20		.25
Porterhouse steak, lb.		1.25		1.25		1.25
Sirloin steak, lb.		.23		.23	.25	.30
Round steak, lb.		.23		.20	.25	.30
Rib Roast, per lb.		.25		.13		.22 1/2
Rib boil, per lb.		.18		.13	.13	.20
Shoulder steak, per lb.		.10		.12		.12 1/2
Ribs of beef, per lb.		.13		.15		.18
Pot roast, per lb.		.13		.15		.14
Pork roast, per lb.		.13		.18	.15	.17
Salt pork, per lb.		.23		.15	.16	.20
Pork chops, per lb.		.20		.12 1/2		
Hams, per lb.		.23		.20	.13	.20
Legs, Pork, per lb.		.23		.22		.23
Pig's feet, per lb.		.20		.15		.18
Sausage, per lb.		.10		.15		.08
Bacon, per lb.		.20		.15		.15
Legs lamb, per lb.		.23		.23		
Lamb chops, per lb.		.13		.16		
Legs mutton, per lb.		.23		.20		.20
Mutton chops, per lb.		.13		.16		.20
Shoulder lamb, per lb.		.23		.20	.18	.22
Mutton stew, per lb.		.15		.15		
Loin of mutton, per lb.		.10		.12		.12 1/2
Salmon, fresh, per lb.		.13		.13		.20
Halibut, fresh, per lb.		.25		.15		.17 1/2
Chicken, hens, per lb.		.25		.15		.17 1/2
Chicken, spring, per lb.		.20		.15	.16	.18
Turkey, per lb.		.20		.13	.20	.22
		.25		.25		

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES	SHERIDAN				SILVER BOW			
	Culbertson		Plentywood		Butte			
	\$	\$	\$	\$	\$	\$		
Baking powder, lb. can	.25	—	.40	.25	.15	—	.35	
Beans, per lb. ....	.07	—	.12 1/2	.08	.12 1/2	—	.10	
Cove oysters, per can..					.25	—	.20	
Blackberries, 2 1/2 lbs..			.25		.25	—	.35	
Canned cherries, can...			.35		.20	—	.35	
Canned plums, can.....			.15		.25	—	.15	.25
Canned raspberries, can			.35		.20	—	.35	
Baked beans, per can...			.10	.20	.25	—	.10	.17
Canned peas, per can...			.17 1/2		.12 1/2	—	.12 1/2	1/2
Canned corn, per can...			.12 1/2	.10	.12 1/2	—	.10	.10
Canned tomatoes, can...			.12 1/2		.12 1/2	—	.10	.10
Coffee, per lb. ....	.27	—	.45	.25	.40	—	.25	.40
Condensed milk, can...			.12 1/2		.12 1/2	—	.10	.10
Dried apples, evap. lb.			.15		.12 1/2	—	.12 1/2	1/2
Dried apricots, evp. lb.			.22 1/2		.16	—	.20	.20
Dried currants, evp. lb.			.15		.15	—	.12 1/2	1/2
Dried peaches, evp. lb.			.15		.12 1/2	—	.12 1/2	1/2
Dried pears, evp., lb.			.20		.16	—	.15	.15
Dried plums, per lb....						—	.17	.17
Dried prunes, per lb....			.15		.12 1/2	—	.08	.08
Dried raisins, per lb...			.10		.10	—	.10	.10
Oatmeal crackers, pkg.			.10		.10	—	.10	.10
Soda crackers, pkg.....			.10		.10	—	.10	.10
Catsup, medium size...			.10	.05	.25	—	.10	.10
Wheat flour, 98-lb. sack			.25		.25	—	.25	.25
Oatmeal, 9-lb. pkg.....			2.75		2.75	3.00	—	3.90
Cornmeal, 9-lb. pkg....			.35		.40	—	.45	.45
Rollod oats, per pkg...					.35	—	.30	.30
Buckwheat flour, 9 lbs.			.25		.25	—	.12 1/2	1/2
Graham flour, 10-lb. pk			.60		.60	—	.60	.60
Honey, per lb. ....			.35		.35	—	.40	.40
Rice, per lb. ....			.50		.25	—	.20	.20
Soda, per lb. ....			.10		.08	—	.12 1/2	1/2
Table salt, per lb.....			.08 1/2		.10	—	.08	.08
Cider vinegar, gallon...			.02		.02	—	.02 1/2	1/2
Syrup, Log Cabin, qt...			.35		.35	—	.50	.50
Molasses, New OrL., qt.			.20		.20	—	.40	.40
Sugar, gran., lbs. for \$1			.20		.15	—	.20	.20
Tea, per lb. ....		15 lbs.				15 lbs.		15 lbs.
Butter, per lb. ....			.50		.50	—	.50	.50
Eggs, per dozen.....	.30	—	.38		.35	—	.40	.40
Cheese, Am. cream, lb.			.40	.38	.40	—	.45	.45
Potatoes, per hundred.			.25		.25	—	.25	.25
Porterhouse steak, lb..			2.00		1.75	—	1.50	1.50
Sirloin steak, lb.....			.28		.25	—	.30	.30
Round steak, lb.....			.28		.25	—	.25	.25
Rib Roast, per lb.....	.20	—	.25		.22	—	.25	.25
Rib boil, per lb.....			.24		.20	—	.22	.22
Shoulder steak, per lb.	.10	—	.15		.15	—	.15	.15
Ribs of beef, per lb....	.16	—	.20		.20	—	.20	.20
Pot roast, per lb.....	.12 1/2	—	.15		.15	—	.16	.16
Pork roast, per lb.....	.16	—	.18		.18	—	.17 1/2	1/2
Salt pork, per lb.....	.18	—	.25		.22	—	.22	.22
Pork chops, per lb....	.15	—	.18	.20	.22	—	.20	.20
Hams, per lb.....			.25		.22	—	.25	.25
Legs, Pork, per lb.....	.20	—	.25	.23	.25	—	.20	.23
Pig's feet, per lb.....			.20		.22	—	.22	.22
Sausage, per lb.....			.15		.10	—	.10	.10
Bacon, per lb.....			.13		.18	—	.20	.20
Legs lamb, per lb.....	.20	—	.35	.25	.85	—	.24	.30
Lamb chops, per lb....			.18		.22	—	.25	.25
Legs mutton, per lb....			.20		.25	—	.25	.25
Mutton chops, per lb...			.16		.20	—	.18	.18
Shoulder lamb, per lb...			.20		.22	—	.17 1/2	1/2
Mutton stew, per lb...			.16		.18	—	.15	.15
Loin of mutton, per lb.			.12 1/2		.15	—	.10	.10
Salmon, fresh, per lb...			.22		.22	—	.17 1/2	1/2
Halibut, fresh, per lb...	.18	—	.20		.22	—	.17 1/2	1/2
Chicken, hens, per lb...			.12 1/2		.20	—	.23	.23
Chicken, spring per lb.			.15		.22	—	.25	.25
Turkey, per lb.....			.18		.22	—	.29	.29

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES	STILLWATER		SWEETGRASS		TETON	
	Columbus		Big Timber		Conrad	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can		.35		.35		.40
Beans, per lb. ....	.05	.08½	.07½	.09		.08
Cove oysters, per can..	.12½	.20		.12½		.12½
Blackberries, 2½ lbs..		.25		.25		.20
Canned cherries, can...		.25		.25		.20
Canned plums, can....		.25		.20		.20
Canned raspberries, can		.25		.25		.20
Baked beans, per can..	.12½	.35	.12½	.25		.15
Canned peas, per can..	.12½	.35	.12½	.15		.12½
Canned corn, per can..	.12½	.20		.12½		.12½
Canned tomatoes, can..	.12½	.20		.15		.15
Coffee, per lb. ....	.30	.45	.33½	.45	.30	.45
Condensed milk, can...	.05	.12½		.12½		.12½
Dried apples, evap. lb.		.12½		.17		.15
Dried apricots, evp. lb.		.17½		.18		.17
Dried currants, evp. lb.		.15		.15		.15
Dried peaches, evp. lb.		.12½		.14		.15
Dried pears, evp., lb...		.17½		.17		.15
Dried plums, per lb....		.15				.15
Dried prunes, per lb...		.15				.15
Dried raisins, per lb...		.15		.11		.12½
Oatmeal crackers, pkg.		.10		.10		.12½
Soda crackers, pkg....		.19		.10		.10
Catsup, medium size...	.05	.25		.25		.10
Wheat flour, 98-lb. sack		.25		.25		.35
Oatmeal, 9-lb. pkg....	2.65	3.50	2.75	3.50	3.25	
Cornmeal, 9-lb. pkg....		.50		.50		.45
Rollid oats, per pkg...		.40		.40		.40
Buckwheat flour, 9 lbs.		.12½		.35		.35
Graham flour, 10-lb. pk		.60		.65		.60
Honey, per lb. ....		.35		.45		.45
Rice, per lb. ....		.12½		.12½		.20
Soda, per lb. ....	.08½	.12½	.08	.12½	.10	.12½
Table salt, per lb....		.08½		.08½		.08
Cider vinegar, gallon..		.02		.02		.02½
Syrup, Log Cabin, qt...		.50		.50		.50
Molasses, New OrL., qt.		.42½		.45		.40
Sugar, gran., lbs. for \$1		.15		.25		.20
Tea, per lb. ....	14 lbs.		14 lbs.		14 lbs.	
Butter, per lb. ....	.50	.75	.50	.65	.50	.50
Eggs, per dozen.....	.30	.40	.30	.35	.30	.40
Cheese, Am. cream, lb..		.40	.30	.35		.40
Potatoes, per hundred.		.25		.25		.25
Porterhouse steak, lb..		1.00		1.25		2.00
Sirloin steak, lb.....		.24	.22½	.25		.20
Round steak, lb.....		.22		.25		.20
Rib Roast, per lb.....		.20		.20		.17½
Rib boil, per lb.....		.18		.15		.17½
Shoulder steak, per lb.		.12½		.12½		.10
Ribs of beef, per lb....		.18		.18		.15
Pot roast, per lb.....		.12½		.15		.17½
Pork roast, per lb.....		.15		.15		.15
Salt pork, per lb.....		.17		.18		.17½
Pork chops, per lb....		.17		.18		.17½
Hams, per lb.....	.21	.24		.18	.21	.22½
Legs, Pork, per lb....		.17		.18		.17
Pig's feet, per lb.....		.04		.10		.06
Sausage, per lb.....		.15		.10		.15
Bacon, per lb.....	.23	.25		.18	.17½	.25
Legs lamb, per lb.....		.16		.18		.17½
Lamb chops, per lb....		.20	.15	.18		.17½
Legs mutton, per lb...		.15		.15		.17½
Mutton chops, per lb...		.18				.17½
Shoulder lamb, per lb...		.12½		.15		.15
Mutton stew, per lb...		.12½		.18		.12½
Loin of mutton, per lb.		.16		.17½		.17½
Salmon, fresh, per lb..		.20		.18		.17½
Halibut, fresh, per lb..		.20		.18		.17½
Chicken, hens, per lb..		.15		.18		.17½
Chicken, spring, per lb.		.16		.18		.17½
Turkey, per lb.....		.22		.23		.22½

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES	TETON		TETON		VALLEY			
	Cutbank		Choteau		Glasgow			
	\$	\$	\$	\$	\$	\$		
Baking powder, lb. can	.25	—	.40	.30	.25	—	.45	
Beans, per lb. ....	.08	—	.10	.10	.08	—	.10	
Cove oysters, per can..	.12½	—	.25	.35			.15	
Blackberries, 2½ lbs..			.25	.25			.20	
Canned cherries, can...			.30	.25			.30	
Canned plums, can....			.25	.20			.20	
Canned raspberries, can			.25	.35			.30	
Baked beans, per can..	.10	—	.35	.12½—			.20	
Canned peas, per can..	.12½	—	.25	.15	—		.15	
Canned corn, per can...			.12½	.12½—	.16¾		.12½	
Canned tomatoes, can..	.12½	—	.20	.15	—		.15	
Coffee, per lb.....	.30	—	.45	.27½	.45	.25	—	.35
Condensed milk, can...			.12½	.05	—		.12½	.10
Dried apples, evap. lb.			.15	.15			.12½	.12½
Dried apricots, evp. lb.			.18	.22			.20	.20
Dried currants, evp. lb.			.15	.15			.15	.15
Dried peaches, evp. lb.			.15	.12½	.12½		.15	.15
Dried pears, evp., lb...			.12½	.16¾				
Dried plums, per lb...				.15				
Dried prunes, per lb...			.12½	.12½—	.16¾		.15	
Dried raisins, per lb...			.12½	.12½			.12½	.12½
Oatmeal crackers, pkg.			.10	.10			.10	.10
Soda crackers, pkg....			.05	.25			.10	.10
Catsup, medium size...			.35	.30			.35	.35
Wheat flour, 98-lb. sack	2.75	—	3.25	2.50		2.75	—	3.00
Oatmeal, 9-lb. pkg.....			.45	.50				
Cornmeal, 9-lb. pkg....			.45	.40			.40	.40
Rolled oats, per pkg...	.15	—	.35	.15			.50	.50
Buckwheat flour, 9 lbs.			.65	.65			.50	.50
Graham flour, 10-lb. pk			.50	.40			.50	.50
Honey, per lb.....			.20	.25			.25	.25
Rice, per lb.....			.10	.10			.12½	.12½
Soda, per lb.....	.08	—	.10	.08¾		.08	—	.08
Table salt, per lb...			.03	.02½			.02½	.02½
Cider vinegar, gallon..			.50	.60			.50	.50
Syrup, Log Cabin, qt...			.45	.45			.50	.50
Molasses, New Orl., qt.			.25	.20			.17½	.17½
Sugar, gran., lbs. for \$1		12 lbs.		14 lbs.		15 lbs.		
Tea, per lb. ....	.45	—	.80	.70			.50	.50
Butter, per lb. ....	.35	—	.45	.40		.40	—	.45
Eggs, per dozen.....	.42	—	.50	.45		.40	—	.50
Cheese, Am. cream, lb..			.25	.30			.25	.25
Potatoes, per hundred.			1.50	2.00			2.00	2.00
Porterhouse steak, lb..			.25	.25			.23	.23
Sirloin steak, lb.....			.25	.25			.23	.23
Round steak, lb.....			.23	.22½			.23	.23
Rib Roast, per lb.....			.18	.20			.15	.15
Rib boil, per lb.....			.12½	.15			.15	.15
Shoulder steak, per lb.			.20	.20			.20	.20
Ribs of beef, per lb...							.15	.15
Pot roast, per lb.....			.15	.20			.18	.18
Pork roast, per lb.....			.23	.15	—		.20	.20
Salt pork, per lb.....			.17	.17½			.20	.20
Pork chops, per lb.....			.25	.20			.25	.25
Hams, per lb.....	.23	—	.25	.25		.20	—	.25
Legs, Pork, per lb.....			.20	.20			.20	.20
Pig's feet, per lb.....			.05	.10			.10	.10
Sausage, per lb.....			.15	.17½			.20	.20
Bacon, per lb.....			.25	.27½—	.30	.20	—	.25
Legs lamb, per lb.....			.20	.20				
Lamb chops, per lb....			.18	.20			.25	.25
Legs mutton, per lb...			.20	.20			.20	.20
Mutton chops, per lb..			.18	.20			.25	.25
Shoulder lamb, per lb..			.17	.15			.25	.25
Mutton stew, per lb...			.05	.10			.20	.20
Loin of mutton, per lb.			.18	.20			.25	.25
Salmon, fresh, per			.18	.20			.20	.20
Halibut, fresh, per lb..			.17	.20			.20	.20
Chicken, hens, per lb...			.25	.22½			.20	.20
Chicken, spring, per lb.			.25	.22½			.20	.20
Turkey, per lb.....			.27	.26			.25	.25

TABLE NO. 11 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF FOOD COMMODITIES, JANUARY 1, 1914, IN DIFFERENT MONTANA CITIES.

COMMODITIES	VALLEY		YELLOWSTONE			
	Malta		Billings		Laurel	
	\$	\$	\$	\$	\$	\$
Baking powder, lb. can		.30	.15	.40	.25	.60
Beans, per lb. ....	.08½—	.10	.08	.12½	.08	.12½
Cove oysters, per can..	.12½—	.25	.20	.25		.25
Blackberries, 2½ lbs..				.25		.25
Canned cherries, can..		.30		.30	.25	.35
Canned plums, can....		.30		.25		.25
Canned raspberries, can		.35		.30		.25
Baked beans, per can..	.12½—	.25	.15	.25	.10	.25
Canned peas, per can..		.15	.12½—	.20		.15
Canned corn, per can..		.12½	.10	.15	.10	.15
Canned tomatoes, can..		.15	.10	.15		.15
Coffee, per lb.....	.25 —	.45	.25	.40	.25	.45
Condensed milk, can..	.06½—	.12½	.05	.12½	.05	.15
Dried apples, evap. lb.		.16		.15		.18
Dried apricots, evp. lb.		.18		.20		.20
Dried currants, evp. lb.		.15		.15		.15
Dried peaches, evp. lb.		.12		.12½		.15
Dried pears, evp., lb...		.20				.18
Dried plums, per lb....						
Dried prunes, per lb...				.15		.15
Dried raisins, per lb...				.15		.12½
Oatmeal crackers, pkg.		.10		.10		.10
Soda crackers, pkg....		.10		.10		.10
Catsup, medium size...	.05 —	.25	.05 —	.25	.05 —	.50
Wheat flour, 98-lb. sack		.25	.20 —	.25		.30
Oatmeal, 9-lb. pkg.....	2.80 —	3.20		2.35	2.75 —	3.50
Cornmeal, 9-lb. pkg....		.40		.45		.50
Rolled oats, per pkg...		.40		.35		.35
Buckwheat flour, 9 lbs.		.35		.15	.15 —	.35
Graham flour, 10-lb. pk		.70		.55		.65
Honey, per lb.....		.40		.35		.45
Rice, per lb.....				.12½		.12½
Soda, per lb.....		.08½	.08½—	.12½	.08 —	.10
Table salt, per lb.....		.08½		.08½		.10
Cider vinegar, gallon..		.02½		.01½		.02
Syrup, Log Cabin, qt...		.40		.40		.40
Molasses, New Orl., qt.				.40		.40
Sugar, gran., lbs. for \$1		.20		.15		.25
Tea, per lb. ....	14 lbs.		16 lbs.		14 lbs.	
Butter, per lb. ....	.35 —	.60	.50 —	.80		.50
Eggs, per dozen.....	.35 —	.40	.30 —	.35	.35 —	.40
Cheese, Am. cream, lb..		.45		.35	.40 —	.45
Potatoes, per hundred.		.25		.25		.25
Porterhouse steak, lb..	2.00		1.25		1.25	
Sirloin steak, lb.....		.30	.25 —	.30		.27
Round steak, lb.....		.28	.22½—	.25		.20
Rib Roast, per lb.....		.22	.18 —	.20		.25
Rib boil, per lb.....		.16	.18 —	.20		.20
Shoulder steak, per lb.		.15	.10 —	.15		.13
Ribs of beef, per lb...		.20	.15 —	.18		.22
Pot roast, per lb.....		.16	.12½—	.15		.20
Pork roast, per lb.....		.15	.15 —	.18		.18
Salt pork, per lb.....		.22	.15 —	.18		.21
Pork chops, per lb....		.13		.17½		.18
Hams, per lb.....		.25	.20 —	.22		.23
Legs, Pork, per lb....	.25 —	.30	.20 —	.25		.25
Pig's feet, per lb.....		.15		.18		.21
Sausage, per lb.....		.20		.12½		.12½
Bacon, per lb.....		.25	.12½—	.22		.17
Legs lamb, per lb.....	.25 —	.35	.20 —	.30	.22 —	.30
Lamb chops, per lb....		.18		.20		.17
Legs mutton, per lb...		.20		.20		.17
Mutton chops, per lb...		.18		.18		.17
Shoulder lamb, per lb..		.20		.15		.15
Mutton stew, per lb...		.18		.08		.11
Loin of mutton, per lb.		.20		.20		.17
Salmon, fresh, per lb..		.20	.15 —	.20		.20
Halibut, fresh, per lb..		.18	.15 —	.20		.20
Chicken, hens, per lb..		.22	.15 —	.20		.18
Chicken, spring, per lb.		.25	.15 —	.25		.18
Turkey, per lb.....		.23	.18 —	.25		.22

TABLE NO. 12—COST OF LIVING—WHOLESALE PRICES OF PRINCIPAL FOOD COMMODITIES AS REPORTED FROM LEADING DISTRIBUTING CENTERS.

COMMODITIES.	CASCADE		LEWIS & CLARK		MISSOULA		SILVER BOW		YELLOWSTONE	
	Great Falls	Helena	Helena	Missoula	Butte	Billings				
Baking powder, lb. can.....	.19	.40	.06	.13	.40	.19 1/2	—	.20	—	.40
Beans, per lb. ....	.04 1/2	.15	.06	.05	.15	.07 1/2	—	.05	—	.09
Cove oysters, per can.....		.16 1/2			.15	.18 1/2	—	.09 1/2	—	.15
Blackberries, 2 1/2 lb. can.....		.16 1/2			.17	.19 1/2	—		—	.25
Canned cherries, per can.....		.12			.12	.10 1/2	—		—	.15
Canned plums, per can.....	.16 1/2	.20			.20	.23	—		—	.20
Canned raspberries, per can.....	.08	.15	.10	.07 1/2	.07 1/2	.09	—		—	.12 1/2
Baked beans, per can.....		.08		.08 1/4	.15 1/2	.10	—		—	.09 1/2
Canned peas, per can.....		.07 1/2		.07 1/2	.09 1/2	.09	—		—	.08 1/2
Canned corn, per can.....		.09		.09 1/2	.09 1/2	.09 1/2	—		—	.10 1/2
Canned tomatoes, per can.....		.31 1/4	.20	.19	.34	.27 1/2	—	.21	—	.34
Coffee, per lb. ....	.04	.08 1/2			.08 1/4	.08 1/4	—		—	.12
Condensed milk, per can.....		.10 1/2			.11 1/2	.11 1/2	—		—	.16 1/2
Dried apples, evaporated, per lb.		.16 1/2		.15	.15 1/2	.15 1/2	—		—	.11 1/4
Dried apricots, evaporated, per lb.		.10 1/2		.10 1/2	.10 1/2	.10 1/2	—		—	.11 1/4
Dried currants, evaporated, per lb.		.07		.09 1/4	.06 1/2	.08 1/4	—		—	.09 1/4
Dried peaches, evaporated, per lb.		.14		.14	.11	.11 1/2	—		—	.12
Dried pears, evaporated, per lb.		.11		.11	.11	.11	—		—	.11 1/2
Dried plums, per lb. ....	.06 1/2	.08		.08 1/2	.08 1/2	.08 1/2	—		—	.11 1/2
Dried prunes, per lb. ....		.08 1/2		.08 1/2	.08 1/2	.08 1/2	—		—	.11 1/2
Dried raisins, per lb. ....		.07 1/4		.08 1/2	.10	.07 1/2	—		—	.09 1/4
Oatmeal crackers, per pkg.....	.04	.16 1/2	.08	.20 1/2	.08	.07 1/2	—		—	.08 1/4
Soda crackers, per pkg.....		.17		.22	.20	.20	—		—	.25
Catsup, medium size.....	2.10	2.30	2.25	2.10	2.20	2.65	—	2.60	—	3.15
Wheat flour 98 lb. sack.....		.30			.31 1/2	.30	—		—	.33
Oatmeal 9 lb. pkg.....		.25			.25 1/2	.25	—		—	.27
Corneal, 9 lb. pkg.....		.37 1/2		.10 1/2	.08 1/2	.25	—		—	.27
Roll'd oats, per pkg.....		.37 1/2		.45	.46 1/2	.45	—		—	.48
Buckwheat flour, per 9 lb. pkg.		.16		.25	.25	.25	—		—	.30
Graham flour, per 10 lb. pkg....		.16		.13	.15	.15	—		—	.12
Honey, per lb. ....	.04 1/4	.06 1/2	.05 1/2	.04 1/4	.07 1/4	.06 1/4	—	.06	—	.07 1/2
Rice, per lb. ....		.05		.07	.06	.06 1/4	—		—	.06
Soda, per lb. ....		.05		.01 1/4	.01 1/4	.01 1/4	—		—	.01 1/4
Table salt, per lb. ....		.24		.35	.21	.32	—		—	.26
Cider vinegar, per gallon.....		.33		.30	.33 1/4	.33 1/4	—		—	.32
Syrup, Towles Log Cabin, per qt.		.10		.14	.13 1/2	.15	—		—	.14
Molasses, New Orleans, per qt.		.38					—		—	
Sugar, granulated, lbs. for \$1.00	20 1/2 lbs		17 1/2 lbs.	19 1/2 lbs.	18 1/2 lbs.	20 lbs.	—		—	
Tea, per lb. ....	.22	.38	.30	.20	.40	.25	—		—	.48
Butter, per lb. ....				.30	.32	.33	—		—	.30
Eggs, per dozen.....				.36 1/2	.40	.30	—		—	.25
Cheese, American Cream, per lb.		.20		.24	.18	.24	—		—	.22
Potatoes, per hundred.....		1.25		1.25	.90	1.15	—		—	

TABLE NO. 13—COST OF LIVING—RETAIL PRICES OF COAL AND WOOD  
IN DIFFERENT MONTANA CITIES, MARCH 1, 1914, COMPILED FROM  
BLANK FORMS OF INQUIRY RECEIVED FROM RELIABLE SOURCES.

CITY OR TOWN	Lump Coal, Per Ton, Delivered.	Wood, Per Cord, Stove Length.	Wood Per Cord, Four Foot Length.
Anaconda .....	\$ 7.75	\$ 8.50	\$ 4.60
Billings .....	6.00	.....	.....
Big Timber .....	6.00	6.50	.....
Butte .....	6.75	9.00	3.50
Boulder .....	6.50	6.25	5.00
Bozeman .....	6.50	8.00	6.50
Bridger .....	4.50	.....	.....
Culbertson .....	3.00	5.50	4.00
Chester .....	8.00	9.00	8.00
Conrad .....	7.25	.....	.....
Chinook .....	4.50	.....	5.00
Dillon .....	8.00	8.00	6.00
Deer Lodge .....	8.00	7.50	6.00
Ekalaka .....	3.25	7.50	6.00
Forsyth .....	5.75	6.50	5.00
Glasgow .....	6.00 to	10.00	7.50
Glendive .....	3.50 to	7.00	7.00
Great Falls .....	2.00 to	7.00	9.00
Harlowton .....	.....	5.50	6.50
Hamilton .....	7.00 to	8.75	5.50
Hardin .....	.....	4.50	.....
Helena .....	.....	6.50	8.50
Kalispell .....	4.50 to	8.00	6.00
Libby .....	.....	7.75	5.00
Livingston .....	.....	6.25	9.00
Lewistown .....	5.50 to	6.50	.....
Manhattan .....	.....	6.00	6.00
Miles City .....	.....	6.50	7.50
Missoula .....	.....	7.50	6.00
Philipsburg .....	7.00 to	9.00	7.00
Polson .....	.....	11.00	6.00
Roundup .....	.....	4.00	9.00
Three Forks .....	6.00 to	7.00	8.50
Thompson .....	.....	7.50	6.75
Townsend .....	5.50 to	6.00	8.50
Wibaux .....	.....	6.50	7.00
Whitefish .....	.....	9.50	6.00

TABLE NO. 14—COST OF LIVING—RETAIL PRICES OF MEATS FOR THE YEAR 1914, COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE BOOKS OF A HELENA MEAT MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Increase 1914 over 1900.
Porterhouse steak, per lb.....	\$.15	\$.20	33.33	\$.30	50.	100.
Sirloin steak, per lb.....	.12½	.18	44.	.25	39.	100.
Round steak, per lb.....	.10	.15	50.	.20	33.33	100.
Rib roast, per lb.....	.12½	.18	44.	.23	28.	84.
Rib boil, per lb.....	.04	.08	100.	.15	87.	275.
Shoulder steak, per lb.....	.08	.12½	56.	.18	44.	125.
Ribs of beef, per lb.....	.04	.08	100.	.15	87.	275.
Pot roast, per lb.....	.07	.11	57.	.18	66.66	157.
Pork roast, per lb.....	.12½	.18	44.	.20	11.	60.
Salt pork, per lb.....	.10	.15	50.	.18	20.	80.
Pork chops, per lb.....	.12½	.15	20.	.20	33.33	60.
Hams, local, per lb.....	.18	.20	11.	.30	50.	66.66
Hams, eastern, 1st quality, per lb.	.18	.20	11.	.30	50.	66.66
Hams, eastern, 2d quality, per lb.	.15	.18	20.	.28	55.	87.
Legs pork, per lb.....	.12½	.15	20.	.18	20.	44.
Hamburger, per lb.....	.10	.12½	25.	.18	44.	80.
Pigs' feet, per lb.....	.04	.05	25.	.08	60.	100.
Sausage, per lb.....	.10	.12½	25.	.18	44.	80.
Pigs' liver, per lb.....	.....	.....	.....	.03	.....	.....
Bacon, local, per lb.....	.18	.20	11.	.22	10.	22.
Bacon, eastern, 1st quality, lb....	.18	.20	11.	.30	50.	50.
Bacon, eastern, 2nd quality, lb....	.15	.18	20.	.25	38.	66.66
Legs, lamb, per lb.....	.15	.20	33.33	.30	50.	100.
Lamb chops, per lb.....	.15	.20	33.33	.30	50.	100.
Legs mutton, per lb.....	.12½	.15	20.	.20	33.33	60.
Mutton chops, per lb.....	.12½	.15	20.	.20	33.33	60.
Shoulder lamb, per lb.....	.12½	.15	20.	.20	33.33	60.
Mutton stew, per lb.....	.02½	.06	280.	.10	66.66	300.
Loins mutton, per lb.....	.12½	.15	20.	.20	33.33	60.
Crab, per lb.....	.20ea	.....	.....	.30ea	50.	50.
Salmon, fresh, per lb.....	.15	.15	.....	.20	33.33	33.33
Halibut, fresh, per lb.....	.15	.15	.....	.20	33.33	33.33
Chickens—hens, per lb.....	.15	.18	20.	.20	11.	33.33
Spring chicken, per lb.....	.20	.20	.....	.25	25.	25.
Turkey, per lb.....	.20	.25	25.	.30	20.	50.
Goose, per lb.....	.15	.20	33.33	.25	25.	66.66
Duck, per lb.....	.15	.20	33.33	.25	25.	66.66

TABLE NO. 14 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF MEATS FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE BOOKS OF A BILLINGS MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Increase 1914 over 1900.
Porterhouse steak, per lb.....	\$.15	\$.20	33.33	\$.30	50.	100.
Sirloin steak, per lb.....	.12½	.18	44.	.25	39.	100.
Round steak, per lb.....	.12½	.15	20.	.20	33.33	60.
Rib roast, per lb.....	.12½	.15	20.	.18	20.	44.
Rib boil, per lb.....	.06	.10	66.66	.12½	25.	108.
Shoulder steak, per lb.....	.10	.12½	25.	.15	20.	50.
Ribs of beef, per lb.....	.08	.10	25.	.15	50.	87.50
Pot roast, per lb.....	.06	.10	66.66	.18	80.	300.
Pork roast, per lb.....	.10	.12	20.	.18	50.	80.
Salt pork, per lb.....	.10	.12½	25.	.18	44.	80.
Pork chops, per lb.....	.12½	.15	20.	.20	33.33	60.
Hams, local, per lb.....	.10	.15	50.	.22	46.66	120.
Hams, eastern, 1st quality, lb....	.18	.20	11.	.30	50.	66.66
Legs pork, per lb.....	.12½	.15	20.	.18	20.	44.
Hamburger, per lb.....	.09	.10	11.	.15	50.	66.66
Pigs' feet, per lb.....	.03	.04	33.33	.05	25.	66.66
Sausage, per lb.....	.10	.10	.....	.17	70.	70.
Pigs' liver, per lb.....	.....	.....	.....	.05	.....	500.
Bacon, local, per lb.....	.12	.12½	21.	.20	60.	66.66
Bacon, eastern, 1st quality, lb....	.12½	.15	20.	.23	60.	80.
Bacon, eastern, 2nd quality, lb....	.10	.12	20.	.17	41.66	70.
Legs lamb, per lb.....	.12½	.15	20.	.18	20.	44.
Lamb chops, per lb.....	.12½	.15	20.	.20	33.33	60.
Legs mutton, per lb.....	.10	.12½	25.	.17	36.	70.
Mutton chops, per lb.....	.10	.12½	25.	.17	36.	70.
Shoulder lamb, per lb.....	.06	.10	66.66	.15	33.33	150.
Mutton stew, per lb.....	.03	.03	.....	.05	.....	66.66
Loins mutton, per lb.....	.12½	.15	20.	.18	20.	44.
Salmon, fresh, per lb.....	.12½	.15	20.	.20	33.33	60.
Halibut, fresh, per lb.....	.10	.12½	25.	.15	20.	50.
Chicken—hens, per lb.....	.12½	.18	44.	.18	.....	44.
Spring chicken, per lb.....	.18	.20	11.	.20	.....	11.
Turkey, per lb.....	.18	.20	11.	.25	25.	39.
Goose, per lb.....	.10	.12	20.	.20	66.66	100.
Duck, per lb.....	.10	.12	20.	.20	66.66	100.

TABLE NO. 14 (CONTINUED)—COST OF LIVING—RETAIL PRICES OF MEATS FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE BOOKS OF A GREAT FALLS MEAT MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Decrease 1914 over 1910.	Percent Increase 1914 over 1900.
Porterhouse steak, lb.....	\$ .17½	\$ .22½	28.60	\$ .25	11.11	.....	42.86
Sirloin steak, lb.....	.15	.22½	50.	.25	11.11	.....	66.66
Round steak, lb.....	.12½	.20	60.	.20	.....	.....	60.
Rib roast, lb.....	.15	.17½	16.66	.20	14.22	.....	33.33
Rib boil, lb.....	.08	.10	25.	.12½	25.	.....	56.25
Shoulder steak, lb.....	.10	.15	50.	.17½	16.66	.....	75.
Ribs of beef, lb.....	.15	.17½	16.66	.20	14.22	.....	33.33
Pot roast, lb.....	.10	.15	50.	.17½	16.66	.....	75.
Pork roast, lb.....	.15	.22½	50.	.20	.....	11.11	33.33
Salt pork, lb.....	.12½	.17½	40.	.20	14.22	.....	60.
Pork chops, lb.....	.12½	.22½	80.	.20	.....	11.11	60.
Hams, local, lb.....	.....	.....	.....	.35	.....	.....	.....
Hams, eastern, 1 qual, lb..	.12½	.30	140.	.35	16.66	.....	180.
Legs pork, lb.....	.15	.22½	50.	.20	.....	11.11	33.33
Hamburger, per lb.....	.15	.15	.....	.17½	16.66	.....	16.66
Pigs' feet, per lb.....	.08	.08	.....	.08	.....	.....	.....
Sausage, per lb.....	.12½	.15	20.	.17½	16.66	.....	40.
Pigs' liver, per lb.....	.03	.05	66.66	.05	.....	.....	66.66
Bacon, local, per lb.....	.....	.....	.....	.40	.....	.....	.....
Bacon, eastern, 1 qual, lb..	.16	.35	118.70	.40	14.28	.....	150.
Bacon, eastern, 2 qual, lb..	.12½	.....	.....	.....	.....	.....	.....
Legs lamb, per lb.....	.....	.....	.....	.30	.....	.....	.....
Lamb chops, per lb.....	.....	.....	.....	.30	.....	.....	.....
Legs mutton, per lb.....	.17½	.20	14.22	.20	.....	.....	14.22
Mutton chops, per lb.....	.15	.20	33.33	.20	.....	.....	33.33
Shoulder lamb, per lb.....	.....	.....	.....	.25	.....	.....	.....
Mutton stew, per lb.....	.05	.10	100.	.15	50.	.....	200.
Loins mutton, per lb.....	.17½	.18½	5.70	.20	8.15	.....	14.22
Salmon, fresh, per lb.....	.15	.20	33.33	.25	25.	.....	66.66
Hallbut, fresh, per lb.....	.15	.20	33.33	.20	.....	.....	33.33
Chicken—hens, per lb.....	.16	.21	31.24	.25	23.81	.....	56.24
Turkey, per lb.....	.17½	.30	71.42	.30	.....	.....	71.42
Goose, per lb.....	.16	.22½	46.24	.25	11.11	.....	56.24
Duck, per lb.....	.....	.....	.....	.25	.....	.....	.....

TABLE NO. 14 (CONTINUED)—COST OF LIVING. RETAIL PRICES OF MEATS FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE BOOKS OF A MISSOULA MEAT MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Increase 1914 over 1900.
Porterhouse steak, per lb.....	\$ .20	\$ .25	25.	\$ .30	20.	50.
Sirloin steak, per lb.....	.15	.18	20.	.25	39.	66.66
Round steak, per lb.....	.12	.15	25.	.22	46.	83.33
Rib roast, per lb.....	.15	.18	20.	.22½	25.	50.
Rib boil, per lb.....	.08	.10	25.	.12½	25.	56.25
Shoulder steak, per lb.....	.10	.15	50.	.18	20.	80.
Ribs of beef, per lb.....	.08	.10	25.	.12½	25.	56.25
Pot roast, per lb.....	.10	.12½	25.	.18	44.	80.
Pork roast, per lb.....	.15	.18	20.	.20	11.	33.33
Salt pork, per lb.....	.12½	.15	20.	.18	20.	44.
Pork chops, per lb.....	.15	.20	33.33	.22	10.	46.
Hams, local, per lb.....	.....	.....	.....	.....	.....	.....
Hams, eastern, 1st quality, lb.....	.....	.....	.....	.....	.....	.....
Hams, eastern, 2d quality, lb.....	.16	.22	37.50	.22	.....	37.50
Legs pork, per lb.....	.18	.20	11.	.20	.....	11.
Hamburger, per lb.....	.12	.15	25.	.18	20.	50.
Pigs' feet, per lb.....	.05	.08	60.	.08	.....	60.
Sausage, per lb.....	.12	.15	25.	.18	20.	50.
Pigs' liver, per lb.....	.....	.05	500.	.05	.....	500.
Bacon, local, per lb.....	.17	.22	29.	.22	.....	29.
Bacon, eastern, 1st quality, lb.....	.....	.....	.....	.....	.....	.....
Bacon, eastern, 2d quality, lb.....	.....	.....	.....	.....	.....	.....
Legs lamb, per lb.....	.....	.....	.....	.....	.....	.....
Lamb chops, per lb.....	.....	.....	.....	.....	.....	.....
Legs mutton, per lb.....	.15	.18	20.	.20	11.	33.33
Mutton chops, per lb.....	.15	.20	33.33	.25	25.	66.66
Shoulder lamb, per lb.....	.....	.....	.....	.....	.....	.....
Mutton stew, per lb.....	.08	.10	25.	.12½	25.	56.
Loins mutton, per lb.....	.18	.20	11.	.25	25.	38.
Salmon, fresh, per lb.....	.15	.18	20.	.25	38.	66.66
Halibut, fresh, per lb.....	.12	.15	25.	.20	33.33	66.66
Chicken—hens, per lb.....	.18	.22	22.22	.22	.....	22.22
Spring chicken, per lb.....	.20	.20	.....	.25	25.	25.
Turkey, per lb.....	.27	.27	.....	.30	.....	11.
Goose, per lb.....	.18	.20	11.	.20	.....	11.
Duck, per lb.....	.18	.20	11.	.20	.....	11.

TABLE NO. 15—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE RECORDS OF A LEADING BILLINGS GROCERY MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Decrease 1914 over 1910.	Percent Increase 1914 over 1900.
Baking powder, lb. can....	\$.25	\$.25	.....	\$.25	.....	.....	.....
Small white beans, per lb....	.06	.06	.....	.06	.....	.....	.....
Lima beans, per lb.....	.08½	.08½	.....	.12½	54.	.....	54.
Cove oysters, per can.....	.20	.20	.....	.25	25.	.....	25.
Blackberries, 2½ lb. can....	.25	.25	.....	.25	.....	.....	.....
Canned cherries, per can...	.25	.25	.....	.30	20.	.....	20.
Canned plums, per can.....	.20	.20	.....	.20	.....	.....	.....
Canned pineapple, per can..	.20	.20	.....	.20	.....	.....	.....
Canned raspberries, can....	.....	.....	.....	.....	.....	.....	.....
Baked beans, per can.....	.17½	.17½	.....	.17½	.....	.....	.....
Canned peas, per can.....	.12½	.12½	.....	.12½	.....	.....	.....
Canned asparagus, can....	.35	.35	.....	.35	.....	.....	.....
Canned corn, per can.....	.12½	.12½	.....	.12½	.....	.....	.....
Canned succotash, per can..	.12½	.15	20.	.15	.....	.....	20.
Canned tomatoes, per can..	.12½	.12½	.....	.12½	.....	.....	.....
Coffee, 1st quality, per lb....	.40	.40	.....	.45	12.33	.....	12.33
Coffee, cheap, per lb.....	.20	.20	.....	.25	25.	.....	25.
Condensed milk, per can...	.10	.10	.....	.10	.....	.....	.....
Dried apples, evaporated, lb.	.12½	.12½	.....	.15	20.	.....	20.
Dried apricots, evap., lb....	.15	.20	33.33	.20	.....	.....	33.33
Dried currants, evap., lb....	.12½	.15	20.	.15	.....	.....	20.
Dried peaches, evap., lb....	.10	.12½	25.	.12½	.....	.....	25.
Dried pears, evaporated, lb..	.12½	.15	20.	.15	.....	.....	20.
Dried plums, per lb.....	.15	.15	.....	.15	.....	.....	.....
Dried prunes, per lb.....	.08½	.12½	53.	.15	20.	.....	80.
Dried raisins, per lb.....	.10	.10	.....	.12½	25.	.....	25.
Oatmeal crackers, per pkg...	.10	.10	.....	.10	.....	.....	.....
Soda crackers, per pkg.....	.25	.25	.....	.25	.....	.....	.....
Catsup, medium size.....	.30	.30	.....	.30	.....	.....	.....
Wheat flour, 1 grade 98-lb.	3.00	3.50	16.66	3.50	.....	.....	16.66
Wheat flour, 2 grade, 98-lb.	2.25	2.50	11.	2.75	10.	.....	22.
Oat meal, 9 lb. pkg.....	.40	.45	12.33	.40	.....	12.33	.....
Corn meal, 9 lb. pkg.....	.35	.35	.....	.35	.....	.....	.....
Rolled oats, per pkg.....	.12½	.12½	.....	.12½	.....	.....	.....
Buckwheat flour, 9-lb. pkgs.	.60	.60	.....	.60	.....	.....	.....
Graham flour, 10-lb. pkgs..	.35	.35	.....	.35	.....	.....	.....
Rye flour, 25-lb. sack.....	.80	.90	12.33	.90	.....	.....	12.33
Honey, per lb.....	.12½	.12½	.....	.12½	.....	.....	.....
Rice, Japanese, per lb.....	.08½	.08½	.....	.08½	.....	.....	.....
Rice, Carolina, per lb.....	.12½	.12½	.....	.12½	.....	.....	.....
Soda, per lb.....	.08½	.08½	.....	.08½	.....	.....	.....
Table salt, per lb.....	.02	.02	.....	.02	.....	.....	.....
Cider vinegar, per gal.....	.35	.40	15.	.40	.....	15.	.....
Syrup, Towles' Log Cabin, qt.	.40	.45	12.33	.45	.....	.....	12.33
Molasses, New Orleans, qt..	.20	.20	.....	.20	.....	.....	.....
Sugar, gran., No. lbs. for \$1	13	13	.....	15	15.	.....	15.
Tea, per lb.....	.60	.60	.....	.60	.....	.....	.....
Butter, per lb., creamery....	.35	.40	15.	.35	.....	15.	.....
Butter, per lb., dairy.....	.25	.25	.....	.25	.....	.....	.....
Butter, per lb., eastern.....	.35	.40	15.	.35	.....	15.	.....
Eggs, fresh, per doz.....	.30	.35	16.66	.50	42.	.....	66.66
Eggs, case or shipped, doz.	.....	.....	.....	.....	.....	.....	.....
Cheese, American cream, lb..	.25	.25	.....	.30	20.	.....	20.
Milk, per qt.....	.....	.....	.....	.....	.....	.....	.....
Cream, per qt.....	.....	.....	.....	.....	.....	.....	.....
Potatoes, per hundred.....	.75	1.00	33.33	1.25	25.	.....	66.66

TABLE NO. 15 (CONTINUED)—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE RECORDS OF A LEADING BUTTE GROCERY MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Percent Decrease 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Decrease 1914 over 1910.	Percent Increase 1914 over 1900.	Percent Decrease 1914 over 1900.
Baking powder, lb can..	\$.25	\$.25			\$.25				
Small white beans, lb...	.05	.06 1/4	25.		.08 1/2	32.		66.66	
Lima beans, per lb.....	.08 1/2	10	19.80		.10			19.80	
Cove oysters, per can....	.20	.20			.20				
Blackberries, 2 1/2-lb. can.	.25	.25			.25				
Canned cherries per can..	.25	.25			.25				
Canned plums, per can....	.15	.16 2/3	11.07		.15		9.96		
Canned pineapple, can....	.35	.35			.25		29.		29.
Canned raspberries, can..	.35	.35			.35				
Baked beans, per can....	.12 1/2	.12 1/2			.15	20.		20.	
Canned peas, per can....	.12 1/2	.12 1/2			.15	20.		20.	
Canned asparagus can...	.35	.35			.35				
Canned corn, per can....	.12 1/2	.12 1/2			.12 1/2				
Canned succoash, can....	.16 2/3	.16 2/3			.15		9.96		9.96
Canned tomatoes, lb.....	.12 1/2	.12 1/2			.12 1/2				
Coffee, 1 quality, lb.....	.40	.40			.45	12.33		12.33	
Coffee, cheap, per lb....	.16	.20	25.		.25	25.		56.25	
Condensed milk, can....	.10	.10			.10				
Dried apples, evap., lb...	.15	.15			.15				
Dried apricots, evap., lb.	.17 1/2	.20	14.07		.20			14.07	
Dried currants, evap., lb.	.12	.12 1/2			.12 1/2				
Dried peaches, evap., lb..	.15	.15			.12 1/2		16.66		16.66
Dried pears, evap., lb....	.15	.15			.15				
Dried plums, per lb.....	.12 1/2	.17	36.		.20	18.		60.	
Dried prunes, per lb....	.10	.12 1/2	25.		.15	20.		50.	
Dried raisins, per lb....	.15	.12 1/2		16.66	.12 1/2				16.66
Oatmeal crackers, pkg....	.10	.10			.10				
Soda crackers, pkg.....	.10	.10			.10				
Catsup, medium size....	.25	.25			.25				
Wheat flour, 1 g'de, 98-lb.	3.75	4.40	17.50		4.25		3.45	13.33	
Wheat flour, 2 g'de, 98-lb.	3.25	3.90	20.		3.00		23.		7.66
Oat meal, 9-lb. pkg.....	.40	.50	25.		.45		10.	12.33	
Corn meal, 9-lb. pkg.....	.25	.35	40.		.35			40.	
Rolled oats, per pkg....	.35	.35			.35				
B'kwh't flour, 9-lb. pkgs.	.50	.60	20.		.65	8.33		30.	
Graham flour, 10-lb. pkg.	.40	.40			.35		12.33		12.33
Rye flour, 25-lb. sack....	.75	.85	13.20		.90	5.88		20.	
Honey, per lb.....	.15	.16 2/3	11.07		.15		9.96		
Rice, Japanese, per lb....	.08 1/4	.06 1/4		25.	.08 1/2		25.		
Rice, Carolina, per lb....	.12 1/2	.12 1/2			.12 1/2				
Soda, per lb.....	.08 1/3	.08 1/3			.08 1/3				
Table salt, per lb.....	.02	.02			.02				
Cider vinegar, per gal....	.60	.50		16.66	.50				16.66
Sy'p, Towel's Log Cabin, qt	.40	.40			.50	25.		25.	
Molasses, New Orleans, qt.	.25	.25			.20		20.		20.
Sugar, gran., No. lbs. \$1	14	13		7.14	14	7.70			
Tea, per lb.....	.35	.35			.35				
Butter, per lb, creamery.	.35	.40	15.		.45	12.33		29.	
Butter, per lb, dairy....									
Butter, per lb, eastern...	.35	.40	15.		.40			15.	
Eggs, fresh, per doz.....	.40	.55	37.50		.65	18.		62.50	
Eggs, case or shipped, doz.	.35	.40	15.		.40			15.	
Cheese, Am. cream, lb....	.25	.25			.25				
Milk, per qt.....	.10	.10			.10				
Cream, per qt.....	.50	.60	20.		.60			20.	
Potatoes, per hundred....	1.75	1.50		14.25	1.50				14.25

TABLE NO. 15 (CONTINUED)—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE RECORDS OF A GREAT FALLS GROCERY MERCHANT.

NAME OF COMMODITY.	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Percent Decrease 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Decrease 1914 over 1910.	Percent Increase 1914 over 1900.	Percent Decrease 1914 over 1900.
Baking powder, lb. can....	\$25-50	\$25-50	.....	.....	\$25-50	.....	.....	.....	.....
Small white beans, lb....	.08½	.08½	.....	.....	.06	.....	28.	.....	28.
lima beans, per lb....	.07½	.08½	11.	.....	.07½	.....	10.	.....	.....
Cove oysters, per can....	.17½	.20	14.28	.....	.20	.....	14.28	.....	.....
Blackberries, 2½-lb. can..	.17½	.20	14.28	.....	.20	.....	14.28	.....	.....
Canned cherries, per can..	.20	.25	25.	.....	.20	.....	.....	.....	20.
Canned plumbs, per can..	.15	.15	.....	.....	.15	.....	.....	.....	.....
Canned raspberries, can..	.25	.25	.....	.....	.25	.....	.....	.....	.....
Baked beans, per can....	.15	.15	.....	.....	.10	33.33	.....	.....	33.33
Canned peas, can, stand'd.	.12½	.12½	.....	.....	.10	20.	.....	20.	.....
Canned corn, can, stand'd.	.12½	.10	.....	20.	.10	.....	.....	20.	.....
Canned tomatoes, can....	.12½	.12½	.....	.....	.10	20.	.....	20.	.....
Coffee, 1 quality, lb....	.45	.40	.....	11.	.40	.....	.....	11.	.....
Coffee, cheap, per lb....	.25	.20	.....	20.	.20	.....	.....	20.	.....
Condensed milk, can....	.12½	.12½	.....	.....	.10	20.	.....	20.	.....
Dried apples, evap., lb....	.15	.12½	.....	16.66	.12½	.....	.....	16.66	.....
Dried apricots, evap., lb..	.12½	.15	20.	.....	.20	33.33	.....	60.	.....
Dried currants, evap., lb..	.12½	.12½	.....	.....	.12½	.....	.....	.....	.....
Dried peaches, evap., lb..	.10	.12½	25.	.....	.10	20.	.....	.....	.....
Dried pears, evap., lb....	.11	.12½	13.66	.....	.12½	.....	13.66	.....	.....
Dried plums, per lb....	.12½	.15	20.	.....	.12½	.....	16.66	.....	.....
Dried prunes, per lb....	.12½	.10	.....	20.	.10	.....	.....	20.	.....
Dried raisins, per lb....	.10	.10	.....	.....	.10	.....	.....	.....	.....
Oatmeal crack's, pkg., ....	.12½	.12½	.....	.....	.08½	32.	.....	32.	.....
Soda crackers, pkg., ....	.08½	.10	10.	.....	.10	.....	19.	.....	20.
Catsup, medium size....	.25	.25	.....	.....	.20	20.	.....	20.	.....
Wheat flour, 1 g'de, 98-lb.	3.20	3.70	15.60	.....	2.50	32.43	.....	21.56	.....
Wheat flour, 2 g'de, 98-lb.	3.00	3.50	16.66	.....	2.25	35.71	.....	25.	.....
Oat meal, 9-lb. pkg.....	.45	.50	11.	.....	.40	20.	.....	11.	.....
Corn meal, 9-lb. pkg.....	.30	.35	16.66	.....	.35	.....	16.66	.....	.....
Roll'd oats, per pkg.....	.35	.45	28.57	.....	.35	22.22	.....	.....	.....
B'kwh't flour, 9-lb. pkgs.	.45	.50	11.	.....	.45	10.	.....	.....	.....
Graham flour, pkg. 10 lbs..	.35	.40	14.28	.....	.30	25.	.....	14.28	.....
Honey, per lb.....	.16½	.20	20.	.....	.18	.....	08.	10.	.....
Rice, Japanese, per lb....	.07½	.08½	11.	.....	.06	28.	.....	20.	.....
Rice, Carolina, per lb....	.10	.12½	25.	.....	.07½	40.	.....	25.	.....
Soda, per lb.....	.08½	.08½	.....	.....	.06	28.	.....	28.	.....
Table salt, per lb.....	.02½	.03	20.	.....	.02½	20.	.....	.....	.....
Cider vinegar, per gal....	.40	.50	25.	.....	.40	20.	.....	.....	.....
Sy'p, Towle's Log Cabin	.40	.40	.....	.....	.40	.....	.....	.....	.....
Molasses, New Orleans, qt.	.25	.25	.....	.....	.15	40.	.....	40.	.....
Sugar, gran., No. lbs. \$1	.16	.15	.....	6.25	.18	20.	.....	12.50	.....
Tea, per lb.....	.50	.50	.....	.....	.35	30.	.....	30.	.....
Butter, per lb., creamery..	.40	.40	.....	.....	.37½	6.25	.....	6.25	.....
Butter, per lb., dairy....	.35	.35	.....	.....	.30	14.28	.....	14.28	.....
Butter, per lb., eastern....	.....	.....	.....	.....	.35	.....	.....	.....	.....
Eggs, fresh, per doz.....	.50	.50	.....	.....	.40	20.	.....	20.	.....
Eggs, case or shipped, doz	.40	.40	.....	.....	.35	12.33	.....	12.33	.....
Cheese, Am. cream, lb....	.17½	.25	42.85	.....	.22½	.....	28.57	10.	.....
Potatoes, per hundred....	1.10	1.50	36.36	.....	1.50	.....	36.36	.....	.....

TABLE NO. 15 (CONTINUED)—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE RECORDS OF A LEADING HELENA MERCHANT.

NAME OF COMMODITY	Price 1900.	Price 1910.	Percent Increase 1910 over 1900.	Percent Decrease 1910 over 1900.	Price 1914.	Percent Increase 1914 over 1910.	Percent Decrease 1914 over 1910.	Percent Increase 1914 over 1900.	Percent Decrease 1914 over 1900.
Baking powder, lb. can....	\$.50	\$.50	.....	.....	\$.50	.....	.....	.....	.....
Small white beans, lb....	.06½	.07	7.75	.....	.06	.....	8.33	.....	7.75
Lima beans, per lb....	.08½	.08	.....	6.25	.10	25	.....	17.64	.....
Cove oysters, per can....	.20	.17½	.....	12.50	.20	14.22	.....	.....	.....
Blackberries, 2½-lb. can..	.25	.20	.....	20	.20	.....	.....	.....	20
Canned cherries per can..	.25	.20	.....	25	.20	.....	.....	.....	20
Canned plums, per can....	.15	.15	.....	.....	.15	.....	.....	.....	.....
Canned raspberries, can..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baked beans, per can....	.25	.25	.....	.....	.25	.....	.....	.....	.....
Canned peas, per can....	.12½	.12½	.....	.....	.12½	.....	.....	.....	.....
Canned corn, can....	.10	.10	.....	.....	.10	.....	.....	.....	.....
Canned tomatoes, per can..	.12½	.12½	.....	.....	.12½	.....	.....	.....	.....
Coffee, 1st quality, lb....	.40	.40	.....	.....	.45	12.33	.....	12.33	.....
Coffee, cheap, per lb....	.15	.20	33.33	.....	.30	50	.....	100	.....
Condensed milk, can....	.12½	.12½	.....	.....	.12½	.....	.....	.....	.....
Dried apples, evap., lb....	.12½	.10	.....	20	.12½	25	.....	.....	.....
Dried apricots, evap., lb..	.12½	.14	12	.....	.18	28	.....	44	.....
Dried currants, evap., lb..	.15	.12½	.....	16.66	.15	20	.....	.....	.....
Dried peaches, evap., lb....	.12½	.10	.....	20	.10	.....	.....	.....	20
Dried pears, evap., lb....	.12½	.11	.....	4	.13	18	.....	4	.....
Dried plums, per lb....	.10	.14	40	.....	.13	.....	7	30	.....
Dried prunes, per lb....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dried raisins, per lb....	.07	.07	.....	.....	.09	28	.....	28	.....
Oatmeal crackers, pkg....	.10	.10	.....	.....	.10	.....	.....	.....	.....
Soda crackers, pkg....	.20	.25	25	.....	.25	.....	.....	25	.....
Catsup, medium size....	.25	.25	.....	.....	.25	.....	.....	.....	.....
Wheat flour, 1 g'de, 98-lb.	2.50	3.70	48	.....	2.95	.....	20	18	.....
Wheat flour, 2 g'de, 98-lb.	2.10	2.90	38	.....	2.65	.....	9	26	.....
Oat meal, 9-lb. pkg....	.30	.40	33.33	.....	.40	.....	.....	33.33	.....
Corn meal, 9-lb. pkg....	.25	.35	40	.....	.35	.....	.....	40	.....
Rollod oats, per pkg....	.12½	.12½	.....	.....	.12½	.....	.....	.....	.....
B'kwh't flour, 9-lb. pkg....	.55	.55	.....	.....	.55	.....	.....	.....	.....
Graham flour, 10-lb pkg..	.30	.40	33.33	.....	.35	.....	12.33	16.66	.....
Honey, per lb....	.17½	.20	14.50	.....	.20	.....	.....	14.50	.....
Rice, Japanese, per lb....	.08½	.08	.....	8	.07	.....	12.33	16	.....
Rice, Carolina, per lb....	.12½	.10	.....	20	.10	.....	.....	.....	20
Soda, per lb....	.08½	.08½	.....	.....	.08½	.....	.....	.....	.....
Table salt, per lb....	.01½	.02	20	.....	.02	.....	.....	20	.....
Cidar vinegar, per gal....	.50	.50	.....	.....	.50	.....	.....	.....	.....
Sy'p, Towles Log Cabin, qt.	.36½	.36½	.....	.....	.36½	.....	.....	.....	.....
Molasses, New Orleans, qt.	.12½	.15	20	.....	.15	.....	.....	20	.....
Sugar, gran., No. lbs. \$1..	.13	.13	.....	.....	.14	7.07	.....	7.07	.....
Tea, per lb....	.50	.50	.....	.....	.50	.....	.....	.....	.....
Butter, per lb., creamery..	.35	.42½	21	.....	.47½	11.75	.....	35.66	.....
Butter, per lb., dairy....	.30	.35	16.66	.....	.40	15	.....	30	.....
Butter, per lb., eastern....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eggs, fresh, per doz....	.25	.35	40	.....	.50	42.66	.....	100	.....
Eggs, case or shipped, doz.	.20	.27½	37.50	.....	.40	42	.....	100	.....
Cheese, Am. cream, lb....	.20	.25	25	.....	.30	20	.....	50	.....
Potatoes, per hundred....	1.25	.80	.....	36	1.25	56	.....	.....	.....

TABLE NO. 15 (CONTINUED)—COST OF LIVING. RETAIL PRICES OF GROCERIES FOR THE YEAR 1914, AS COMPARED WITH THE YEARS 1900 AND 1910, COMPILED FROM THE RECORDS OF A LEADING MISSOULA GROCERY MERCHANT.

NAME OF COMMODITY	Price 1900	Price 1910	Percent Increase 1910 over 1900.	Percent Decrease 1910 over 1900.	Price 1914	Percent Increase 1914 over 1910	Percent Decrease 1914 over 1910	Percent Increase 1914 over 1900.	Percent Decrease 1914 over 1900.
Baking powder, lb. can.....	\$.50	\$.50			\$.50				
Small white beans, per lb.....	.06 $\frac{1}{4}$	.08 $\frac{1}{4}$	32.		.08 $\frac{1}{4}$			32.	
Lima beans, per lb.....	.08 $\frac{1}{4}$	.08 $\frac{1}{4}$			.08 $\frac{1}{4}$				
Cove oysters, per can.....	.25	.25			.25				
Blackberries, 2 $\frac{1}{2}$ -lb. can.....	.25	.20		20.	.20				20.
Canned cherries per can.....	.25	.25			.25				
Canned plums, per can.....	.20	.15		25.	.15				25.
Canned pineapple, per can.....	.35	.20		43.	.20				43.
Canned raspberries, can.....	.25	.25			.25				
Baked beans, per can.....	.15	.15			.15				
Canned peas, per can.....	.15	.15			.15				
Canned asparagus, can.....	.40	.30		25.	.35	16.66			12.33
Canned corn, per can.....	.15	.10		33.33	.10				33.33
Canned succotash, per can.....	.20	.20			.20				33.
Canned tomatoes, per can.....	.15	.15			.15				
Coffee, 1st quality, per lb.....	.40	.45	12.50		.45			12.50	
Coffee, cheap, per lb.....	.15	.20	33.33		.25	25.		66.66	
Condensed milk, can.....	.15	.15			.15				
Dried apples, evap., lb.....	.12 $\frac{1}{2}$	.15	20.		.15			20.	
Dried apricots, evap., per lb....	.15	.20	33.33		.20			33.33	
Dried currants, evap., per lb....	.10	.15	50.		.15			50.	
Dried peaches, evap., lb.....	.15	.15			.15				
Dried pears, evap., per lb.....	.15	.15			.15				
Dried plums, per lb.....		.20			.15		25.		
Dried prunes, per lb.....	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			.15	20.		20.	
Dried raisins, per lb.....	.15	.10		33.33	.15	50.			
Oatmeal crackers, per pkg.....	.10	.10			.10				
Soda crackers, pkg.....	.25	.25			.25				
Catsup, medium size.....	.30	.30			.30				
Wheat flour, 1st grade, 98 lb. sack	2.50	3.30	32.		2.80		15.	12.	
Wheat flour, 2nd grade, 98 lb. sack	2.00	3.20	60.		2.70		16.	35.	
Oat meal, 9 lb. pkg.....	.35	.40	14.29		.45	12.33		28.	
Corn meal, 9 lb. pkg.....	.25	.30	20.		.30			20.	
Rolled oats, per pkg.....	.15	.15			.15				
Buckwheat flour, per 9 lb. pkgs....	.50	.60	20.		.60			20.	
Graham flour, per 10 lb. pkgs....	.25	.40	60.		.35	12.33		40.	
Rye flour, 25 lb. sack.....	.75	1.00	33.		1.00			33.	
Honey, per lb.....	.20	.20			.20				
Rice, Japanese, per lb.....	.10	.10			.15	50.		50.	
Rice, Carolina, per lb.....	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			.15	20.		20.	
Soda, per lb.....	.10	.10			.10				
Table salt, per lb.....	.02 $\frac{1}{2}$	.02 $\frac{1}{2}$			.02 $\frac{1}{2}$				
Cider vinegar, per gal.....	.40	.50	25.		.50			25.	
Syrup, Towles Log Cabin, per qt....	.40	.40			.40				
Molasses, New Orleans, per qt....	.25	.25			.20			20.	
Sugar, gran., No. lbs., for \$1.00	13 lb.	14 lb.	7.70		.15	7.13		15.40	
Tea, per lb.....	.60	.60			.60				
Butter, per lb., creamery.....	.35	.40	15.		.40			15.	
Butter, per lb., dairy.....	.30	.35	16.66		.35			16.66	
Eggs, fresh, per doz.....	.35	.50	43.		.50			20.	14.28
Eggs, case or shipped, per doz....	.25	.40	60.		.40			60.	
Cheese, American cream, per lb....	.20	.25	25.		.25			25.	
Potatoes, per hundred.....		.90			1.25	39.			

---

---

# HYDRO-ELECTRIC DEVELOPMENT

---

---



## Hydro-Electric Development

The 1914 publication of the book "Montana," issued by the Department of Agriculture and Publicity, contained a very complete and descriptive article on hydro-electric power plants and the utilization of electricity generated from water power in the manufacturing and industrial development of the state. In view of the fact that this subject has been covered so thoroughly and extensively by another department of the state government at so recent a date, this department does not feel that it would be justified in giving it the attention and space which it would otherwise warrant.

Suffice it to say that in addition to the application of electricity for every conceivable purpose in the state, from hair-singeing, sweeping and cooking to the operation of street railways, mines, mills, smelters and factories, the electrification of the Milwaukee railroad was commenced early last spring from Harlowton to Avery, Idaho. In the fall of 1913 the electrification of the Butte, Anaconda and Pacific, running a distance of 26 miles, connecting the cities of Butte and Anaconda, was completed and gave such satisfactory evidences of the successful application of electrical power in the operation of railroad trains, that the Milwaukee railroad decided at once to adopt this system in crossing the mountains. It is expected this work will take three years to complete, and will cost in the neighborhood of \$7,000,000.

Unofficial reports have been published to the effect that the Great Northern railway is also considering the advisability of following the lead of the Butte, Anaconda and Pacific and the Milwaukee railway, in adopting electric power for operation of their railroad lines in the state. Similar reports are abroad concerning the Northern Pacific. It is confidently expected, in view of the immense possibilities in the development of the water power in Montana, that a few years will witness a transformation and change in the motive power of all railroad lines operating in the state. The changing of steam to electrical power for a railroad can only be done at an enormous expense. The cost of an electric locomotive is at least double that of the steam locomotive which it is supposed to replace, and before electric locomotives can be operated, it is necessary to incur a large additional outlay for power houses, transmission lines, track preparation and other apparatus and material necessary to complete an electrical system. Millions of dollars are now being expended in these enterprises, and the influence of this new factor is being felt in the progress and development of the state. With the possibilities of cheap power, Montana can face her industrial future with confidence.

When fully developed, the several falls of the Missouri river at Great Falls will furnish one of the greatest water power plants on the American continent. In the combined falls there is a height of 535 feet, and the available water power is said to be 350,000 horsepower. The Black Eagle falls have a height of 41 feet, the Rainbow falls of 47 feet. These two falls have been improved and are developing, it is

said, 75,000 horsepower at the lowest flow of water. The Great Falls, now being developed, will add 80,400 horsepower to this immense motive force, the height of the falls being 96 feet. Other precipitate falls are Colter's Falls, 12 feet, and Crooked Falls, 29 feet, and the balance of the head is in rapids.

The Great Falls development, together with power plants on the Missouri river near Helena and those on the Madison river, and a number of smaller plants situated in other small streams of the state, connected in one great system, are supplying light and power for over 40 of the principal cities and towns in the state. In addition, much of the power used in the mining industry of the state is supplied from this source, while street railways are being operated by electricity, and manufacturing and other industries have been stimulated by this new influence. Great electrically driven pumps have been installed at the plant near Helena, and millions of gallons of water are being raised from the river to irrigate the Prickly Pear valley, in order to stimulate the growing crops. At Thompson Falls on the Clark's Fork river in western Montana, large developments are in progress, where one of the largest water power plants in the state is now being constructed.

If plans under way for the building of an electrical railway system are carried out, a vast agricultural district in Carbon and adjoining counties will be given transportation facilities in the near future. The Red Lodge Electric company was organized a year ago and stock has been sold to Red Lodge people and those of Bear Creek. This line is proposed to connect Bear Creek and Washoe with Red Lodge. The Carbon and Stillwater project was launched later and will connect with the above line and extend into the new county of Stillwater, connecting Red Lodge with the main line of the Northern Pacific at Columbus. The road will open up a rich territory of virgin land, besides tapping some 1,700 farms already under cultivation. This road when built will afford an opportunity to market the produce for a vast agricultural district heretofore remote from transportation facilities.

These facts afford some conception of what is being accomplished in the development of hitherto unheeded power on the eastern and western slopes of the Rocky mountains.

With so many streams fed from the heavy snows which fall in the rugged mountains, with innumerable available and suitable power sites, there is sufficient energy which can be utilized for every possible future need and requirement.

The following list contains the principal water power plants which have been developed in Montana, including the Great Falls plant now being developed on the Missouri river below the city of Great Falls, which will add 80,400 horsepower, and the Thompson Falls project, an additional motive force of 40,200 horse power:

Plant—	Generating Capacity (Kilowatts)	No. of Horse Power.
Big Hole .....	3,000	4,000
Billings No. 1.....	1,000	1,300
Black Eagle .....	1,400	1,900
Canyon Ferry .....	7,500	10,000
Hauser Lake .....	14,000	18,700
Lewistown No. 1.....	350	450
Lewistown No. 2.....	100	130
Livingston .....	1,500	2,000
Madison River No. 1.....	2,000	2,600
Madison River No. 2.....	9,000	12,000
Prospect Creek.....	750	1,000
Rainbow .....	25,000	33,500
Missoula River Development.....	4,000	5,300
Big Fork Development.....	2,500	3,350
Great Falls .....	60,000	80,400
Thompson Falls .....	30,000	40,200
Total .....	162,100	216,830

### Individual Power Plants.

We are living in an age of invention, inspiration and progress. To want a thing nowadays is to have it. If the need is apparent and the demand sufficient, it is soon supplied by the genius of some inventive brain. One of the greatest factors in providing a wide variety of home comforts and labor saving devices has been the development and harnessing of power and energy from rivers and mountain streams. Expenditures involving millions of dollars are now being made in Montana in the development of hydro-electric power plants for the movement of trains, the operating of mines, mills, smelters, factories and the pumping of water for the reclamation of vast tracts of waste and arid lands. Radiating wires are now connecting the principal cities and towns of the state, and light, heat and power are being supplied for all kinds of industrial and commercial purposes. That part of the service, however, which is supplied by the hydro-electric plants is another story, as this article is intended to cover only the individual lighting and power plant, especially for the farmer and suburban dweller in isolated districts out of reach of and not accessible to the transmission power lines.

The proper lighting of the home adds much to its comfort and to its value. A dependable water supply is of equal importance, and modern power is likewise valuable and necessary in banishing hard work and much of the drudgery from farm life and country homes.

There are many practicable and comparatively inexpensive systems of illumination which are possible to install in any home. Among the systems which may be installed for power and illumination, mention should be made of the windmill, which has been tried with varying success. Although electrical machinery requires a steady driving

power, and the variable speed of a windmill has been a serious obstacle in generating light and power from this source, a speed control device has recently been perfected, and much of this difficulty is said to have been overcome. If light alone is needed, there are several methods of gas making which are practical and inexpensive and simple to install. There is the gasoline, vapor gas, acetylene gas, and a high pressure gas sometimes called bottled gas, which comes ready for use in steel cylinders similar to those used for carbonated water or for oxygen. For any of the gas systems, the house is piped exactly as it would be for attachment to the regular city mains. The fixtures too, are the same as those used for city gas, equipped with mantles, and differ only in certain mechanical attachments and size of the pipes. Any of these are practical and scientifically tested for safety and efficiency. Perhaps a better system where power is required, in addition to light, is the individual electric plants made commercially possible by the perfection of the gasoline engine. With this plant, all the conveniences of city life are brought to the farm or country home. This system is so largely automatic that practically little attention is required other than furnishing sufficient fuel for the engine and keeping the bearings supplied with plenty of lubricating oil. The storage batteries may be charged while the power is being used for other purposes, and light may be had from this source at any time of the night when the engine is shut down and not in use. The plant can be installed in the basement of the house or some suitable outbuilding, and is comparatively simple and easy to operate.

The delivery of water under pressure is another system of furnishing a water supply for the home which is worthy of mention here. The delivery of water under pressure without water storage was made possible by the perfection of the auto-pneumatic pump, the principle of which was discovered over fifty years ago. One or more pumps may be placed in a well or cistern or other source of supply, and operated by compressed air, which is stored in an air tank by means of an air compressor. An automatic device makes the compressed air force the water out of two pump cylinders, alternately, with a steady and continuous flow. The pump operates only while water is drawn at the faucets. It starts automatically when the faucet is opened and stops when it is closed. The power plant consists of an engine, air compressor and air tank. The compressed air may be used for many other purposes, such as inflating automobile tires, etc.

In mentioning and describing individual lighting and power plants for farm requirements, there is another system which it is believed surpasses all others, and which should be recommended where practical and possible to install. The State of Montana is blessed with innumerable small, swift flowing streams where it is practicable to install and operate water wheel plants for lighting and power plants, and this is the system which it is desired above all others to recommend.

The impounding of water for water purposes, however, is not always profitable and practicable, when the power is transformed into electricity, for two important reasons. In this latitude, a serious ob-

stacle is frequently encountered during the coldest periods by the freezing of water in the streams. At other seasons of the year, the supply of water is low and consequently inadequate to operate a water wheel. These are serious objections and cannot always be overcome. No one wants to install an electric plant that will be idle two or three months in the year, and unless all conditions are favorable, this sort of plant would be out of the question to operate and impracticable to install. In discussing the possibilities of a small power plant of this character, consideration should be given to the fact that every water power is special, and that seldom two installations can be made under the same conditions. As a consequence, the services of a practical civil engineer are necessary in figuring the details and materials, and any recommendations made by him should be invaluable in the building and constructing of the plant. The first important information to acquire before installing a plant is to ascertain how much water flows in the stream in a given time, and how much fall can be had. These facts having been established, it is easy to determine the amount of power which can be developed and the size and kind of plant suitable and desirable to install. Before discussing these subjects, it is desired to make brief mention of the terms watts, kilowatts and horse power and their relation to each other, for the reason that they are not thoroughly understood by the average person not conversant with these technical terms.

A 16-candle power carbon filament lamp requires about 50 watts; a 32-candle power carbon filament lamp requires about 100 watts; a 25-watt tungsten lamp represents about the same lighting capacity as a 16-candle power carbon filament lamp, and a 40-watt tungsten lamp is about equal to the same lighting capacity as a 32-candle power carbon filament lamp. A twin glower heater requires 500 watts to operate. A washing machine would require less than a half horsepower, or 372 watts. Stoves and hot plates take from 200 to 600 watts. A toaster uses 600 watts. A coffee percolator requires from 300 to 500 watts; chafing dishes take 500 watts; a tea kettle 500 watts; heating pads use 50 watts; a foot warmer 400 watts; flat irons require 250 to 600, and a vacuum cleaner runs with 150 watts.

Taking an effective 10 H. P. as an amount best adapted for the ordinary farm or ranch, the following equivalents are applicable:

10 H. P. is equal to 7.56 kilowatts in electrical measurement. This is equal to 7,460 watts, the term usually used in speaking of the capacity of smaller electrical units. In order to arrive at the number of lamps or other small fixtures, a given number of kilowatts will serve. First determine the number of watts the fixture, such as a lamp, flat iron, motor or other electrical appliance will consume, and divide the total wattage available by the watts consumed by the fixture, e. g. 10 H. P. capacity or 7,460 watts will serve 186 40-watt tungsten lamps, and 124 60-watt tungsten lamps. This amount of light, if available, is sufficient for all purposes around a ranch or farm of ordinary size, and at the same time if used for other purposes will give ample power for running such small machinery as a feed cutter, wood saw, churns, flat irons and other small motors. To produce this amount of power

it will require various amounts of water acting under various heights of fall; however, to illustrate and make it more clearly understood, if five feet of fall is available it will require 20 cubic feet of water per second or 800 inches; with ten foot fall, 10.36 cubic feet of water or 414 inches; with 15 feet of fall, 6.90 cubic feet of water or 276 inches, while with 20 feet of fall, five feet per second or 200 inches of water will produce 10 H. P., or in electrical equivalence, 7.46 kilowatts.

To enable a person to calculate easily the horse power of a stream of water, the following table is appended. This table gives the horse power generated by one cubic foot of water per second (7.48 gallons) falling a distance of one foot, which is .0965 H. P., or 72 watts, and as a basis upon which to figure, the following table was calculated from the above.

### Horse Power Generated by One Cubic Foot per Second. Falling Distance Five to Two Hundred Feet.

Fall or Head in Feet.	H. P. of 1 Cu. Ft. or 40 Ins. Water.	Electrical 1" Kilowats.
5	.483	.360
6	.579	.431
7	.676	.504
8	.772	.575
9	.869	.648
10	.965	.718
11	1.062	.792
12	1.159	.865
13	1.255	.936
14	1.352	1.008—1 kw.
15	1.448	1.080
16	1.545	1.152
17	1.642	1.225
18	1.738	1.296
19	1.835	1.368
20	1.932	1.441
25	2.410	1.797
30	2.890	2.890
35	3.380	2.521
40	3.860	2.876
45	4.340	3.237
50	4.820	3.595
55	5.310	3.961
60	5.790	4.319
65	6.270	4.677
70	6.760	5.042—5 kw.
75	7.240	5.401
80	7.720	5.759
85	8.210	6.124
90	8.690	6.482
95	9.170	6.840
100	9.650	7.198
125	12.070	9.004—9 kw.
150	14.48	10.802
175	16.90	12.607
200	19.31	14.405

Equivalents from this table may be converted to suit any case by multiplying the horse power of one cubic foot of water under any head by the head in feet times the number of cubic feet per second of water available.

One cubic foot of water per second is equal to a flow of 7.48 gallons per second of time which will weigh 62.40 lbs. and, is equivalent to 40 Montana statutory miner's inches. If you already have the amount of water available in miner's inches, and desire to find the horse power, divide the number of inches by 40 and multiply the result by the horse power found opposite the height of fall in the table, thus: Given 97 inches of water; 75 ft. fall; 97 divided by 40 equals 2.42 cu. ft. It is found by referring to the figures in the table opposite 75 feet that the horse power factor is 7.24; multiply this by 2.42 equals 17.52 H. P.

If it is desired to ascertain how many lights or other electrical fixtures a given power will serve, multiply the number of horse power by 746, the number of watts in a horse power which will give the total number of watts available. Divide this number by the capacity of the fixture in watts. E. G.: Available H. P. 12. How many 60 watt tungsten lamps can be served? 12 times 746 equals 8,952, the total number of watts; dividing by 60, we find 149 lamps can be lighted by 12 available H. P.

Tungsten lamps are usually made in sizes of 25, 40, 60, 80 and 100 watts capacity.

A flat iron usually consumes about 250 watts, but varies with the size of the iron in use.

For determining the flow of a stream, or the amount of water available for power purposes, the water is measured by means of a weir—an instrument quite well known in all of the irrigating districts. A small weir table is herewith appended:

Weir Table for Weir 1 Foot in Length.

Depth in ins. on crest:	Quantity in cu. ft. per sec. for each foot in length.	In miners inches	Depth in ins. on crest.	Quantity in cu. ft. per sec. for ea. ft. in length.	In miners inches
1	.08	3.2	6	1.18	47
1½	.15	6.	1½	1.34	54
2	.23	9.	7	1.50	60
1½	.30	12.	1½	1.66	66
3	.40	16.	8	1.81	72
1½	.50	20.	1½	2.00	80
4	.65	26.	9	2.18	87
1½	.77	31.	1½	2.35	94
5	.90	36.	10	2.55	102
1½	1.04	42.	1½	2.75	110
-----	-----	-----	11	2.93	117
-----	-----	-----	1½	3.15	126
-----	-----	-----	12	3.35	134

This table was calculated for depths of water from one to twelve inches by one-half inch increments and for a weir width of one foot.

If a weir is more than one foot in width, multiply the one foot length by the number of feet in length of the weir used. If a greater depth than one foot is found, either increase the length of the weir, or calculate the flow from the Francis formulae for the flow of water through weirs which is  $3.33 \text{ } l^h \text{ } 3\text{-}2$ , in which

3.33 equals coefficient of flow

$l$  equals length of weir

$h$  equals depth of water

$3\text{-}2$  equals the cube of the square root of the depth  $h$ .

A wheel to run by the force of the current alone and give power sufficient for all requirements would have to be so large as to make the cost prohibitive. The more efficient way, if not the cheapest in first cost, would be to dam the stream at the high point and carry the water through a flume to where the greatest fall could be obtained and there place your wheel.

In the construction of a small water power plant, it is preferable to use concrete for dams and steel for pipe line. However, in some cases, wood stave pipe can be profitably used. Build such dams and intakes as may be needed on a solid foundation with as little wood or timber work as possible. It is always preferable to use the power direct without storage batteries. Such small plants when properly designed and constructed will run with very little attention and cost of upkeep. The cost of such an installation depends so much on local conditions that it is impossible to make an estimate of the probable cost. Ordinarily, a 10 H. P. direct current electric generator that will operate at 110 volts, a standard voltage, will cost complete with switchboard and all operating appliances, from \$150 to \$250. A water wheel to run such plant will cost a like amount. To this must be added the cost of a pipe line or dam, and in some cases, both are used.

Water wheels are of two general types. The turbine type of wheel being applicable where low heads and a large volume of water is available. For heads of over 50 feet, an impulse wheel known as the Pelton type is generally used. It is preferable at all times to have the electric generator and a water wheel direct connected, that is, both on the same shaft. This eliminates all troubles arising from gears or belts, and makes the operation of the plant more simple.

One of the first subjects to consider before undertaking the development of a small power plant is to determine whether the water flow available is the least quantity that can be expected at any season of the year, and whether it will freeze up in the winter. If the stream freezes, there is little use of attempting to use it for power purposes. The fall and the amount of water available determine the type of water wheel to be used. The question as to whether the water will freeze up in the winter will determine the practicability of the plant. The cost can only be determined upon close estimate made to suit the particular place upon which it is proposed to construct the plant, but with the many constantly flowing streams within the state, it will be found upon close investigation that there are hundreds of places where these small power installations can be erected at a reasonable cost, and that can be operated throughout the entire year.

---

---

## MONTANA MANUFACTURERS

---

---



## Manufacturing in Montana

Montana, while third in size among the states of the union, is comparatively unimportant as a manufacturing state. As a whole, the state is yet sparsely settled, with limited railroad facilities and exorbitant freight rates. Many of the manufactured products are therefore consumed in the state.

Eastern Montana is devoted chiefly to agriculture and stock raising, while lumbering is the chief industry in the far western part of the state. Mining is also one of the principal industries, and ranks second in importance to agricultural pursuits. Nevertheless, manufacturing in Montana makes a very creditable showing and is having a rapid growth and development.

The statistics which are printed in this chapter were selected, arranged and tabulated from blanks sent out to the different industries and returned to us through the postoffice department. Doubtless there are some deficiencies and imperfections in the figures herewith presented, but when consideration is given to the obstacles encountered in obtaining information by this method, the public will understand the difficulties which stand in the way of furnishing an entirely accurate and comprehensive report. Names of firms are not given, in order that the operation of the individual firms may not be disclosed.

### Saw Mill and Timber Industry.

Outside of smelting, the saw mill and logging industry is first in importance of the manufacturing industries in the state. In 1909, according to the Thirteenth Census, it gave employment to an average of 3,106 wage earners, and its products amounted to \$6,334,000. In November, 1909, the month of greatest activity, 3,773 wage earners were employed. It will be seen from the table given in this report, compiled from returns received by this Department, that 4,554 people found employment in this industry in Montana during the winter season of 1913-1914. These figures would indicate a steady growth and improvement since the last United States census period. The lumber and timber industry is, to a considerable extent, a seasonable industry both for logging and milling operations. Many logging concerns do not attempt to operate during the summer season, and a number of mills, especially the smaller ones, are idle during that period of the year.

In the table given, figures are not included for mills idle and not in operation. Most of the lumbering operations are carried on in the western part of the state, although a number of small active mills were found on the eastern slope of the continental divide, particularly in Gallatin and Park counties. It is estimated that the merchantable timber uncut in Montana approximates 65,000,000,000 feet. Computing the value of the stumpage at \$3.00 per thousand feet, it would indicate

that the standing saw timber of the state is worth \$195,000,000, or when reduced to lumber at the saw mill, the value would be \$975,000,000—twice the value of the output of Montana mines, since gold was first discovered.

If the 97 mills operating in the state in 1913 cut close to their capacity, 531,964,000 feet were manufactured into lumber during the twelve months of that period alone. Conditions in many of the larger mills of the state are improving, many of them having adopted the nine-hour work day, whereas a few years ago, the ten-hour day was universal. Wages, too, have increased to an appreciable extent, safety appliances have been installed in many plants, and sanitary and general conditions have shown improvement. Much of the lumber milled is pine and larch, and in the production of the latter, Montana is said to be the leading state.

### Breweries.

From data compiled by this Department early in the fall of 1913, it was found that the brewery industry at that time, equaled, if not surpassed in many respects the flour mill industry in the state. A comparison of figures showed conclusively that the former industry was on a parity with the latter from practically every standpoint.

Not a single new brewery has been erected in the state since these figures were compiled, while numerous flour mills have been built throughout the state, and others are being erected and exploited at this time. The brewery industry, however, appears to be upon a practical and sound financial basis. It has long since passed the experimental stage. No other one industry has as full and complete control of the local trade. Practically the entire output of the nineteen breweries of Montana is consumed in the home market, and judging from the large amount of eastern beer shipped into the state, the combined output is apparently thousands of barrels short of the local consumption each year.

In the annual report of the Bureau of Agriculture, Labor and Industry for the year ending June 30, 1893, the number of breweries in the state was fourteen. The capital invested was \$672,500, and 42,671 barrels of beer were manufactured. The hours of labor averaged a little over ten hours a day. In the year ending June 30, 1905, the total production was 195,741 barrels—an increase of 360 per cent over 1893—and for 1906 the production was 219,562 barrels—an increase of 12.17 per cent over 1905. The capital invested was then \$1,200,000. The number of breweries now operating in the state is nineteen, with a combined investment of \$2,565,000. The daily output of beer is approximately 1,300 barrels, and the yearly capacity has reached 494,625 barrels—over 50,000 barrels more than double what it was in 1906. The average hours of labor for employes in this industry, which includes skilled and unskilled workmen, are 8 1-3 per day, while 290 employes are engaged in this industry, irrespective of proprietors and firm members, of which 231 are skilled, 57 unskilled and two are females. The wages of skilled workmen average \$4.92, unskilled \$3.46 and fe-

males \$3.28 per day. The combined horse power—steam and electric—used in the nineteen institutions represents 2,355. Many of these breweries operate bottling establishments in other towns in the state, and estimates for these plants are not included in the above figures, but statistics for bottling works have since been compiled, and will be found immediately following the breweries in this report.

### Flour Mills.

This industry is one naturally adapted to the state, and shows a very satisfactory and substantial growth since the last United States census period. During the year 1913 seven new flour mills were constructed in different portions of the state, while ten more were erected during the season of 1914. According to the thirteenth United States census, there were twelve flour mills in the state in 1909, whereas at the present time there are thirty-six mills running and in continuous operation. This does not include several feed, alfalfa and cereal mills. The close proximity of the wheat fields and the excellent grain produced will doubtless prove of great advantage in stimulating this important manufacturing industry in the agricultural sections of the state. It is apparent that the manufacture of flour in Montana will show a much more rapid growth and development in the next few years than it has for a generation past.

### Smelters and Reduction Plants.

Smelters, concentrators, leaching and cyanide plants, while supplementary to the mining interests, are nevertheless one of the most important industries of the state. The statistics herewith given were gathered prior to the Butte curtailment of copper, which of necessity affected some of the largest smelters. The figures cannot therefore be taken as an indication of what these institutions are doing at the present time. A glance at the tabulation, however, will give some idea of the importance of this industry in the amount of capital invested and the number of wage earners employed.

### Beet Sugar Industry.

Montana has one beet sugar factory, which was built in 1906. This plant is located at Billings in the heart of the Yellowstone valley, one of the most fertile agricultural sections of the state. This plant cost approximately \$1,250,000, and is modern and up to date in every respect.

Included among the miscellaneous manufacturing industries of the state will be found a report for the estimated operations of this concern for the year 1913.

The plant operates for a period of four months each year, working every day except Sunday from nine to twelve hours a day. Approximately 500 people are employed by the concern, exclusive of those engaged in the growing, harvesting and transportation of sugar beets. Of this number, 50 are skilled and the rest unskilled workmen. Skilled labor receipts from 30 to 55 cents per ton, and unskilled labor 25 to 30 cents per ton.

For the year 1913 a tonnage of 228,945 beets was handled by the factory, for which the growers received approximately \$1,150,000. This is an increase of 40,000 tons for the 1912 output, and an increase of \$60,000 in the amount paid out to farmers. The number of growers also increased from 900 to 1,050, and the acreage from 20,000 to 25,000 acres. No figures are available at the time this is written, for the beet sugar crop for 1914, but according to early estimates, the past season will be the best in the history of this factory since it was built. From 1906 to 1909 inclusive, the sugar company paid the beet growers a flat rate of \$5.00 per ton for beets delivered at stations established by the company throughout the beet-growing district. In the season of 1910 this was changed and a sliding scale based upon the saccharine contents of the beet, ranging from \$5 a ton to \$5.57, was adopted. These prices were slightly increased, until 1913, when the sliding scale ranged from \$5 to \$5.85. A reduction of approximately 50 cents a ton was proposed by the company for the growing season of 1914, and contracts for the reduced price entered into with the growers. Owing to the high price of sugar, because of the European war, however, and the vigorous protests of the growers, the company in October, 1914, rescinded the contracts and agreed to pay the 1914 price.

It is a well established fact that Montana is well adapted to the growing of sugar beets, and the future of the industry here is apparently assured.

### Foundries, Repair and Machine Shops.

Statistics of foundries, repair and machine shops include only the larger and more important machine and repair shops in the state. There are a large number of small establishments of this kind, many of them operated in connection with blacksmith shops, automobile garages and bicycle repair shops, and none of these are included in this report. Cars and general shop construction and repairs by steam railroad companies are also omitted. Operations in railroad shops and round-houses consist almost exclusively in this state of repairs to rolling stock and equipment. At a conservative estimate 4,000 wage earners find employment in this class of work.

### Steam and Power Laundries.

The increase in the number and capacity of steam and power laundries in Montana has kept pace with the increased population and development of the state. In 1909, according to the Thirteenth census of the United States, there were twenty-six establishments of this kind employing 723 persons, exclusive of proprietors and firm members. As shown by statistics herewith given, there are now forty-three laundries in Montana employing 948 wage earners, with a capital invested amounting to \$806,846, and 1,426½ horse power in use. The capacity of these institutions is given in terms of dollars.

### Nurseries and Greenhouses.

While nurseries and greenhouses are not strictly manufacturing institutions, statistics of these concerns are nevertheless submitted in

this report. \$303,000 is invested in this promising Montana industry, irrespective of the Columbia Garden plant in Silver Bow county, which is not a commercial institution and is also one of the largest nurseries in the state. There are a number of small greenhouses and private institutions which employ no help and are not included in this report.

### Butter and Cheese Factories.

A very complete and comprehensive report of butter creameries and cheese factories is herewith submitted in the tabulation following of manufacturing institutions of the state. Of the thirty-nine creameries and three cheese factories doing business during the season of 1914, four were being operated by proprietors and firm members, and did not employ any regular help. These statistics show that \$1,258,200 is invested in butter creameries, and \$14,600 in cheese factories. As far as the returns indicate, 29,970 pounds of butter are manufactured daily, and 8,668,326 pounds yearly. As these reports were submitted during the summer season, when the percentage of cream and milk produced is high, it would not be surprising if the estimates here given are somewhat high. The amount of cheese manufactured daily amounts to 5,200 pounds, with a capacity of 978,000 pounds yearly.

### Meat-Packing and Slaughtering Plants.

Included in this report are statistics only for some of the principal meat-packing and slaughtering plants of the state. Practically all of these concerns started on a small scale under many difficulties and discouragements. From time to time they have been enlarged and improved, with an increased business and capacity.

The most notable improvement made during the past two years in this line was begun early last summer by the Great Falls Meat company, and is now practically completed. It is estimated that \$200,000 has been spent the past season in new buildings and modern machinery. The plant is located about four and one-half miles east of Great Falls, and has shipping facilities on both the Milwaukee and Great Northern railroads. The buildings built by the concern include one 190 by 134 feet in size, three stories high, above a full basement. In addition to this, there is a lard refinery 42 by 64 feet, also four stories in height. The slaughter building is 96 by 47 feet in size, and is also four stories high. The gravity process is being used. The killing will be done in the upper story, the carcass of the slaughtered animal being transferred to the lower stories in the process of being dressed. The entire plant is equipped with the very latest and most modern machinery, and is capable of handling, in addition to the cattle and sheep slaughtered, 100 hogs an hour. The capacity at which the new plant will be run and the number of men employed will depend upon the hogs raised in Montana and the willingness of the Montana merchant to buy the company's products. It is expected that the plant will be run every day, but not at night. As the Montana farmer is rapidly acquiring hogs, which are found to be very profitable, the plant will in all

probability be able to secure a sufficient number of animals to run to its full capacity. The best pork obtainable can be raised in Montana on alfalfa and grain, and the output of this plant should prove satisfactory to the consumer.

### Steam Bakeries.

Particular attention is directed to the statistics of steam bakeries, which include the most important of these concerns in the state. No attempt was made to tabulate returns from many home bakers and small concerns, run in connection with restaurants and candy shops, as it was impossible to segregate the bakery business in these instances from the other lines of endeavor conducted. In the smaller establishments of this character the work is done almost entirely by the proprietor or the immediate members of the family. It was therefore deemed advisable to tabulate only the larger and more important bakery concerns in the state.

### Alfalfa Products Mills.

During the past few years, several alfalfa products mills have been established in the state, but owing, it is said, to indifferent handling and management, all but two or three are closed at the present time. This is practically a new industry in Montana, and should result in much benefit in the future development of the state. Machines have been introduced for the grinding of alfalfa hay in the field, and this product is taken to the mill and mixed with a certain percentage of ground oats and beet sugar syrup—a by-product of the Billings beet sugar factory. It is claimed this makes an excellent food for cattle, sheep and horses, while hogs thrive and quickly fatten on rations of this kind.

Reports of alfalfa mills operating will be found in the statistics of feed, alfalfa and cereal mills.

### Cement Manufacture.

The Three Forks Portland Cement company, statistics of which are included in the miscellaneous industries of the state, was incorporated in 1907, and began the manufacture of cement in 1910. The plant is located at Trident, in Gallatin county, just below where the Missouri river is formed by the junction of the Gallatin, Madison and Jefferson rivers. The Three Forks Portland Cement company is the only concern manufacturing cement in Montana at the present time, although another company was formed some three years ago and a site selected for a plant near Gardiner, in Park county, where, it is claimed, a large and excellent deposit of rare white cement rock is found, of superior quality. This company got into litigation and never built, although the machinery was purchased and is now being housed near the location selected.

The Trident plant had a capacity in 1913 of 1,500 barrels daily, and a yearly output of 450,000 barrels. In anticipation of the state's growth, the capacity was recently increased to 650,000 barrels yearly.

In 1912 the consumption of cement in Montana was approximately 324,000 barrels. In 1913 it was 350,000 barrels, and the past year is in all probability about the same. While there was less cement used during the year 1914 for street paving and work of this character, the large amount of work being done by the Montana Power company will bring the consumption of 1914 fully up to that of former years. It will be seen from these figures that the state's consumption at the present time is about half the output of this plant, which means that the Three Forks concern will be obliged to look outside of the state for a market of practically 50 per cent of its output.

The Montana Concrete company, established in 1912, is also located in Gallatin county, near Logan. This company employs eight men, and is engaged in manufacturing brick and concrete blocks and other finished concrete products.

### Artificial Ice Industry.

The Crystal Ice and Storage company is a new enterprise launched at Great Falls last January. This is the only company in the state, as far as the Department has been able to ascertain, manufacturing artificial ice for commercial purposes. The plant has had a successful year's operation, having supplied much of the Great Falls consumption of ice for refrigeration.

The plant is housed in a reinforced concrete structure, 50 by 150 feet in size, two stories high, designed for the addition of another story for refrigeration and cold storage purposes. The equipment consists of an ammonia gas compressor of 50 tons daily ice-making capacity, a 100 horse power electric motor and condensers for condensing the ammonia gas to a liquid. Air compressors are also used for agitating the water in the freezing tanks, and deep wells with powerful pumps have been provided for securing the best and purest of fresh water. The plant is equipped with a boiler and engine, but steam is used only for thawing the ice loose from the sides of the tanks in which it is frozen, and for cutting the ice into blocks by means of a steam-heated gridiron.

The ice is made by the "slow water" system instead of the condensed water process, the former system having come into more general use, especially where other than steam is used for motive power. The ice is frozen in blocks weighing four tons each, and then cut into convenient sizes to handle. A number of freezing tanks are used, the capacity of one being utilized at a time, assuring a quantity of pure fresh ice daily. During the freezing process the water is kept in agitation by means of a small air current which passes through the water, thus preventing any bubbles from forming, and assuring perfectly clear transparent ice. The output is sold entirely on the local market, not only family consumption being supplied, but much of it is furnished to meat markets, merchants, hotels and restaurants. The ice manufactured by this firm is said to be much better and purer than the natural product, and is all that could be desired.

Report of this firm is included in the Miscellaneous Industries

### Sun River Distillery.

Particular attention is directed to a report of the Sun River Distilling company, which is also included in the miscellaneous industries of the state. This corporation was formerly known as the Montana Distilling company, and commenced operations in 1906.

The plant is located at Manchester, on the Sun river, eight miles from the City of Great Falls. \$56,000 is invested in this enterprise and the capacity is 450 gallons of whiskey daily. The plant runs eight months in the year, being closed down during the summer months, owing to the lack of cold water and the scarcity and usual advance at this time of year in the price of grain. W. E. Dampier is the manager, and six men are employed, working nine hours a day. The concern manufactures several brands of sour mash whiskies, which it advertises as made from Rocky Mountain snow water and the highest-grade grain in the world.

### Pickling Industry.

The Martin Pickling company is a thriving young institution, located at Huntley, Montana, on the government irrigation project. This plant was started seven years ago by N. L. Martin, under many difficulties, but has become a pronounced success. This is the only pickle factory in the state. Interesting exhibits were made by this firm at the state fair in 1913 and 1914, which caused much favorable comment and consideration.

This firm contracted for over 115 acres of raw products for its factory the past season, from farmers in the vicinity of Huntley, and packed approximately 3,000 barrels of pickles of all kinds, which were sold for the most part in the Montana markets. The company doubled its output in 1914, and in July of this year had booked 17 cars of pickles for delivery January 1, 1915. One woman who sold her crop to this factory realized \$204 from an acre of cucumbers in 1913, and during that season the average yield was \$150 per acre.

It will therefore be seen that this is an important industry for Montana, and one that will have a phenomenal growth with the development of the state. A report of this firm will be found in the Miscellaneous Industries.

### Other Industries.

Cigar manufacturers are included separately and make a very creditable showing, although in many of these concerns the work is carried on by proprietors or firm members who work without hired help.

Only two exclusive candy factories were found operating, with the exception of a number of retail firms manufacturing for their own local trade, and as in the case of bakeries, it was found impossible to segregate this part of the business from the other business being done.

Drug manufacturers to the number of three are operating in Montana and are tabulated separately in this report.

Brick and clay manufacturers, like saw mills and logging concerns, do not operate to any appreciable extent during the winter months. Reports of twenty brick and clay manufacturers show a combined capital of \$509,000 and 386 persons employed. This industry shows a steady and substantial growth since the last United States census period. This industry is also given separately in this report.

### Miscellaneous Industries.

In addition to the various industries mentioned separately, statistics are also given of many other important concerns which are included in the miscellaneous industries of the state. Practically each of these concerns constitutes an entire industry, and they are tabulated in this manner in order to conserve space. Specific mention has already been made of many of the most important of these establishments. Consideration should be given to this tabulation.

TABLE NO. 16—MONTANA MANUFACTURES—SAW MILLS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity feet	Yearly Capacity feet	Males Empl'y'd Skilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Female	Kind of Power	Number of Horse Power
Absarokee	Lumber	1890	2,000	4,000	800,000	0	0	9	0	26	8	0	\$0.00	\$2.00	\$0.00	Gasoline	20
Avon	Lumber	1910	6,000	66,000	2,000,000	0	0	9	0	26	6	0	3.00	3.00	...	Steam	30
Beaver	Lumber	1910	30,000	53,000	7,000,000	0	0	9	0	26	5	0	5.14	2.96	...	Steam	50
Benton	Lumber	1911	50,000	35,000	5,000,000	5	0	9	0	26	10	0	4.00	2.50	...	Steam	60
Big Sandy	Lumber	1912	500	5,000	125,000	2	0	0	0	26	4	0	1.55	1.55	...	Electric	20
Bonner	Lumber	1899	850,000	125,000	37,500,000	13	0	9	0	26	6	0	4.50	2.70	...	Steam	750
Bonner	Lumber	1899	100,000	50,000	10,000,000	10	0	9	0	26	10	0	3.00	2.75	...	Steam	500
Bonner	Lumber	1898	548,288	225,000	41,000,000	63	242	0	0	26	12	0	3.75	2.60	...	Steam	1,200
Boulder	Lumber	1909	2,000	5,000	100,000	0	0	9	0	26	15	0	2.50	2.50	...	Steam	25
Boulder	Lumber	1906	5,000	2,500	155,000	1	0	10	0	26	13	0	4.00	3.00	1.25	Steam	60
Bozeman	Lumber	1880	5,000	10,000	1,500,000	3	4	0	0	26	6	0	2.50	2.00	...	Water	75
Bozeman	Lbr.-lth.	1892	16,000	15,000	1,000,000	5	210	10	0	26	4	0	5.00	2.50	1.50	Steam	40
Bozeman	Lumber	1907	10,000	15,000	600,000	3	110	14	0	26	8	0	3.50	2.25	2.00	Steam	95
Brigden	Lumber	1911	3,000	5,000	200,000	0	2	0	0	26	4	0	2.00	1.50	...	Steam	25
Chico	Lumber	1909	1,000	5,000	150,000	2	5	0	0	26	12	0	1.75	1.75	...	Steam	14
Choteau	Lumber	1895	1,500	2,500	150,000	0	4	0	0	26	4	0	4.00	2.50	...	Steam	20
Clancy	Lumber	1907	1,000	5,000	1,500,000	5	0	10	0	26	12	0	4.00	2.75	2.00	Steam	20
Clancy	Lumber	1907	1,800	8,000	200,000	1	5	11	0	26	2	0	3.00	2.00	...	Steam	40
Clyde Park	Lumber	1912	1,200	3,000	550,000	2	5	0	7	0	10	0	1.33	1.33	...	Steam	20
Clyde Park	Lumber	1913	1,500	10,000	3,000,000	1	2	0	0	26	10	0	3.00	2.00	...	Steam	150
Columbia Falls	Lumber	1903	60,000	40,000	5,000,000	12	15	0	0	26	6	0	5.00	2.50	...	Steam	20
Columbia Falls	Lumber	1911	60,000	40,000	12,000,000	12	30	0	0	26	12	0	4.50	2.50	...	Steam	135
Columbia Falls	Lumber	1907	10,000	30,000	1,000,000	3	11	0	0	26	12	0	4.50	2.50	1.50	Steam	122
Columbia Falls	Lumber	1898	500,000	50,000	10,000,000	12	56	0	0	26	8	0	4.55	2.50	...	Steam	600
Columbus	Lumber	1910	500	4,000	12,000,000	0	1	0	0	26	6	0	6.00	3.00	...	Steam	20
Cyr	Lumber	1912	10,000	45,000	12,000,000	10	50	0	9	0	6	0	5.00	2.50	...	Steam	60
Dalys	Lumber	1898	6,000	5,000	500,000	0	10	12	0	26	4	0	3.75	2.00	...	Steam	20
Darby	Lumber	1913	40,000	30,000	3,000,000	5	40	0	9	0	4	0	4.00	2.50	...	Steam	40
Dean	Lumber	1907	1,000	7,000	2,000,000	1	3	0	0	26	3	0	3.50	2.00	...	Steam	20
Dean	Lumber	1910	1,300	2,500	200,000	2	2	0	8	0	3	0	4.50	2.50	2.00	Steam	16
De Borgia	Lumber	1911	3,000	40,000	5,760,000	8	47	2	9	12	10	30	3.15	2.00	...	Steam	65
De Borgia	Lumber	1913	2,000	18,000	5,400,000	8	13	0	9	0	12	0	2.50	2.00	...	Steam	25
Hillon	Lumber	1911	1,000	5,000	100,000	2	0	10	0	26	1	0	4.00	2.50	...	Steam	16
Eureka	Lumber	1906	200,000	130,000	30,000,000	65	170	0	0	26	12	0	5.00	3.00	...	Steam	225
Florence	Lumber	1906	8,000	25,000	7,000,000	10	33	0	9	0	5	0	5.00	3.00	...	Steam	30
Fortine	Lumber	1911	100,000	50,000	12,000,000	40	60	0	0	26	10	0	4.30	2.60	...	Steam	125
Fortine	Lumber	1899	50,000	35,000	10,000,000	2	14	0	0	26	12	0	3.00	1.50	...	Steam	225
Gibson	Lumber	1910	1,500	7,000	150,000	4	4	0	0	26	5	0	3.00	1.50	...	Steam	25
Gold Creek	Lumber	1906	1,000	2,000	22,000	0	0	10	0	26	6	0	1.50	1.50	...	Steam	12
Greycliff	Lumber	1906	2,500	2,000	600,000	0	2	0	0	26	6	0	3.50	1.75	...	Steam	25
Greycliff	Lumber	1913	4,000	5,000	100,000	1	2	0	0	26	6	0	4.04	2.61	...	Steam	360
Hamilton	Lbr.-lth.	1895	288,920	115,000	27,000,000	49	107	0	0	26	10	0	2.50	2.50	...	Steam	15
Heimville	Lumber	1913	1,500	7,000	210,000	0	8	0	0	26	1	0	...	...	...	Steam	15

TABLE NO. 16—(CONTINUED)—MONTANA MANUFACTURES—SAW MILLS.

	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	988	987	986	985	984	983	982	981	980	979	978	977	976	975	974	973	972	971	970	969	968	967	966	965	964	963	962	961	960	959	958	957	956	955	954	953	952	951	950	949	948	947	946	945	944	943	942	941	940	939	938	937	936	935	934	933	932	931	930	929	928	927	926	925	924	923	922	921	920	919	918	917	916	915	914	913	912	911	910	909	908	907	906	905	904	903	902	901	900	899	898	897	896	895	894	893	892	891	890	889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	874	873	872	871	870	869	868	867	866	865	864	863	862	861	860	859	858	857	856	855	854	853	852	851	850	849	848	847	846	845	844	843	842	841	840	839	838	837	836	835	834	833	832	831	830	829	828	827	826	825	824	823	822	821	820	819	818	817	816	815	814	813	812	811	810	809	808	807	806	805	804	803	802	801	800	799	798	797	796	795	794	793	792	791	790	789	788	787	786	785	784	783	782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597	596	595	594	593	592	591	590	589	588	587	586	585	584	583	582	581	580	579	578	577	576	575	574	573	572	571	570	569	568	567	566	565	564	563	562	561	560	559	558	557	556	555	554	553	552	551	550	549	548	547	546	545	544	543	542	541	540	539	538	537	536	535	534	533	532	531	530	529	528	527	526	525	524	523	522	521	520	519	518	517	516	515	514	513	512	511	510	509	508	507	506	505	504	503	502	501
--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

TABLE NO. 17—MONTANA MANUFACTURES—LOGGING CONCERNS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity feet	Yearly Capacity feet	Males Employ'd Skilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Females	Kind of Power	Number of Horse Power
Bonner	Logging	1898	\$.....	250,000	40,000,000	297	0	9	0	26	8	26	\$3.37	\$2.63	\$.....	Steam	150
Hamilton	Logging	1912	16,000	20,000	6,000,000	4	0	9	0	26	7	26	2.90	1.90	.....	Horses	.....
Kalispell	Logging	1907	50,000	80,000	10,000,000	0	12	0	0	26	6	26	2.60	2.60	.....	Horses	.....
Kalispell	Logging	1910	5,000	50,000	6,500,000	10	27	0	0	26	5	26	3.00	2.50	.....	Horses	.....
Kalispell	Logging	1900	10,000	13,333	4,000,000	4	30	0	0	26	4	26	3.45	1.75	.....	Horses	.....
Kalispell	Logging	1913	.....	40,000	3,000,000	1	60	1	10	26	12	30	3.00	2.75	4.00	Horses	.....
Kalispell	Logging	1911	3,000	30,000	3,000,000	6	32	0	0	26	4	26	2.50	1.90	.....	Horses	.....
Kalispell	Logging	1900	1,000	15,000	4,500,000	0	12	0	0	26	12	0	.....	2.75	.....	Horses	.....
Kalispell	Logging	1900	3,000	20,000	5,000,000	0	40	0	0	26	10	0	.....	1.75	.....	Horses	.....
Libby	C., P., & P.	1913	40,000	*1,800 †500	*50,000,000 †15,000	12	12	0	0	26	12	0	3.00	2.75	.....	Horses	.....
Libby	Logging	1911	100,000	100,000	25,000,000	10	56	0	0	26	12	0	3.37	2.75	.....	Steam	200
Missoula	Logging	1910	343,500	100,000	20,000,000	32	126	0	0	26	9	0	4.60	2.90	.....	Steam	400
St. Regis	Logging	1912	50,000	50,000	10,000,000	75	0	0	0	26	10	0	3.50	.....	.....	Steam	.....
St. Regis	Logging	1898	.....	125,000	20,000,000	21	99	0	0	26	9	0	3.30	2.62	.....	Steam	40
Troy	Logging	1911	2,000	40,000	1,000,000	0	8	2	10	26	8	30	.....	1.00	.....	Horses	.....
Wardand	Logging	1906	1,000	10,000	6,000,000	0	30	0	0	26	6	0	3.00	.....	.....	Horses	.....
Whitefish	L., C. P. & M. P.	1906	50,000	30,000	*10,000,000 †3,000	6	25	0	0	26	12	0	4.75	2.75	.....	Steam	75
Total	.....		\$ 674,500	973,333	169,000,000	229	1,002	3	9 ½	26	8 ½	30	\$3.37	\$2.44	\$2.50		865

†Poles.  
‡Piling.  
\*Probs.  
\*Posts.  
zLogs.

TABLE NO. 18—MONTANA MANUFACTURES—PLANING MILLS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity feet	Yearly Capacity feet	Males Empl'y'd Skilled	Males Empl'y'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Bozeman	Custom....	1910	4,500	.....	.....	5	0	0	9	0	26	12	0	\$5.00	.....	\$....	Steam	16
Butte	Custom....	1911	2,500	.....	.....	4	0	0	8	0	26	12	0	6.00	.....	.....	Electric	15
Butte	Cabinet....	1910	2,000	.....	.....	3	0	0	8	0	26	12	0	6.00	.....	.....	Electric	20
Great Falls	Custom....	1910	40,000	1,000	315,000	14	2	0	8	0	26	12	0	4.50	3.00	.....	Electric	122
Hamilton	Lumber....	1904	25,000	8,000	250,000	3	4	0	9	0	26	12	0	4.50	3.75	.....	Steam	40
Kalispell	General....	1904	90,000	75,000	1,500,000	3	10	0	10	0	26	12	0	4.80	2.80	.....	Electric	130
Plains	Custom....	1905	6,000	.....	12,000,000	3	8	0	9	0	26	12	0	4.00	3.00	.....	Steam	25
Ronan	Lumber....	1911	4,000	.....	780,000	8	6	0	8	0	26	2	0	5.00	3.00	.....	Steam	25
Total	.....		\$ 174,000	104,900	14,872,000	42	25	0	8½	0	26	10	0	\$4.98	\$3.15	\$....		393

TABLE NO. 19—MONTANA MANUFACTURES—BREWERIES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity Barrels	Yearly Capacity Barrels	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda	Beer	1888	\$ 220,000	55	16,000	19	0	0	8	0 26	12	12	0	\$4.95	\$0.00	\$0.00	Steam	200
Billings	Beer	1900	100,000	60	18,000	24	0	1	8	8 26	12	12	0	5.00	0	2.25	Steam	300
Bozeman	Beer and Malt.	1895	70,000	50	25,000	12	2	0	8	0 24	12	12	0	4.66	3.66	0	Steam & Elc.	110
Butte	Beer	1884	150,000	140	50,000	15	30	0	8	0 30	12	12	0	8.00	4.50	0	Steam & Elc.	200
Butte	Beer	1876	750,000	160	40,000	30	0	0	8	0 26	12	12	0	4.50	0	0	Steam & Elc.	296
Butte	Lager Beer	1899	50,000	50	18,250	6	0	0	8	0 26	12	12	0	5.00	2.00	0	Steam & Elc.	98
Deer Lodge	Beer	1908	10,000	5	1,800	3	1	0	9	0 26	12	12	0	2.50	2.00	0	Steam	20
Dillon	Beer	1908	25,000	7%	2,200	2	4	0	9	0 26	12	12	0	4.00	3.25	0	Steam	22
Great Falls	Beer	1895	300,000	150	54,750	34	0	1	8	8 26	12	12	0	4.30	0	4.30	Steam	150
Great Falls	Beer and Malt.	1892	250,000	200	80,000	25	0	0	8	0 26	12	12	0	4.85	0	0	Steam & Elc.	232
Havre	Beer	1910	50,000	10	180,000	4	4	0	10	0 26	12	12	0	4.25	2.50	0	Steam & Elc.	108
Helena	Beer	1865	120,000	83%	25,000	4	6	0	8	0 26	12	12	0	4.75	4.25	0	Steam & Elc.	225
Kalispell	Malt Liquors	1894	150,000	100	25,000	31	3	0	8	0 26	12	12	0	4.75	4.50	0	Steam & Elc.	89
Lewistown	Beer and Malt.	1895	45,000	25	9,125	6	1	0	8	0 26	12	12	0	5.00	4.50	0	Steam & Elc.	30
Missoula	Malt Liquors	1895	150,000	150	40,000	20	0	0	7%	0 28	12	12	0	7.40	0	0	Steam & Elc.	20
Phillipsburg	Lager Beer	1875	20,000	5	1,500	1	2	0	8	0 26	12	12	0	5.00	3.00	0	Steam & Elc.	15
Red Lodge	Beer	1911	80,000	40	12,000	8	1	2	0	8	0 24	12	0	6.00	3.00	0	Steam	20
Townsend	Malt Liquors	1880	15,000	6%	2,000	1	2	0	8	0 26	12	12	0	6.00	3.00	0	Steam	20
Virginia City	Beer and Soda.	1863	10,000	3%	1,000	2	0	0	9	0 26	12	12	0	4.00	0	0	Steam & Elc.	20
Total		....	\$2,565,000	1301	494,625	231	57	2	8%	8 26	12	12	0	\$4.92	\$3.46	\$3.28		2355

§—Beer.  
‡—Malt.

TABLE NO. 20—MONTANA MANUFACTURES—BOTTLING WORKS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Empl'y'd Skilled	Males Empl'y'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Butte .....	Soft Drinks .....	1905	\$ 1,500	25.00	\$ 7,500	2	3	0	8	0	0.26	12	12	0	\$4.00	\$0.00	0 Electric	2
Butte .....	Soda Water .....	1898	10,000	200.00	52,000	3	3	0	8	0	0.26	12	12	0	4.00	3.00	0 Electric	2
Butte .....	Soda Water .....	1888	10,000	100.00	22,000	3	3	0	8	0	0.26	12	12	0	4.00	0	0 Electric	5
Dillon .....	Soft Drinks .....	1886	1,500	5.00	1,200	1	0	0	8	0	0.26	12	12	0	4.00	0	0 Electric	1 1/4
Burckha .....	Soft Drinks .....	1906	10,000	45.00	12,000	1	2	0	8	0	0.26	12	12	0	3.50	0	0 Electric	2
Glasgow .....	Soft Drinks .....	1913	1,500	10.00	3,000	1	1	0	8	0	0.26	12	12	0	3.50	0	0 Gasoline	2
Glendive .....	Soft Drinks .....	1910	1,000	65.00	18,000	1	2	0	8	0	0.26	12	12	0	2.50	1.50	0 Electric	3
Great Falls .....	Soda Water & Cider .....	1913	4,000	25.00	7,800	4	2	1	8	0	0.26	12	12	0	4.00	3.00	0 Electric	2
Hayre .....	Mineral Water .....	1908	3,000	25.00	7,000	2	1	0	8	0	0.26	12	12	0	4.00	2.00	0 Steam	10
Helena .....	Soft Drinks .....	1905	20,000	100.00	30,000	0	3	0	9 1/2	0	0.30	12	12	0	3.00	0	0 Hand	2
Helena .....	Mineral Water .....	1865	2,500	13.00	4,000	0	1	0	8	0	0.26	12	12	0	0	2.50	0 Electric	1 1/2
H'nters H. Spg. ....	Carbonated Bever'gs .....	1912	6,000	75.00	12,000	1	1	0	8	0	0.26	12	12	0	3.00	2.00	0 Electric	2
*Kalspell .....	Carbonated Drinks .....	1909	800	7.00	2,200	0	0	0	8	0	0	0	0	0	0	0	0 Electric	1
Lewistown .....	Soda Water .....	1905	2,000	20.00	6,000	2	1	0	8	0	0.26	12	12	0	3.50	0	0 Electric	1
Livingston .....	Beer & Soft Drinks .....	1903	11,500	350.00	109,000	4	0	1	8	0	0.26	12	26	26	3.25	3.45	0 Steam	20
Miles City .....	Soft Drinks .....	1907	6,000	65.00	12,000	1	0	0	10	0	0.26	12	12	0	4.00	0	0 Electric	2
Polson .....	Carbonated Drinks .....	1909	700	2.000	2,000	1	0	0	8	0	0.26	12	12	0	3.00	0	0 Electric	1
*Roundup .....	Soda Water .....	1913	2,000	6.00	2,000	0	0	0	0	0	0	0	0	0	0	0	0 Hand	1
Total .....	.....	.....	\$94,000	\$1,142.00	\$309,700	27	15	1	8 3/4	92 1/4	12	26	26	\$3.60	\$2.50	\$3.45	.....	57 1/2

\*Operated by Owner.

TABLE NO. 21—MONTANA MANUFACTURES—FLOUR MILLS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Months per Year	Days per M'nth Female	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Number of Horse Power
Absarokee	Flour and Feed.....	1911	\$ 8,000	* 25	7,500	1	1	0	10	0	12	26	\$4.00	0	12
Baker	Flour and Feed.....	1913	7,000	30	10,000	1	1	0	12	0	12	26	3.25	0	28
Belgrade	Flour, Feed & Gr. Cer.	1903	225,000	250	55,000	6	8	1	9	9	12	26	2.90	0	30
Bellevue	Flour & Feed.....	1868	40,000	70	40,000	1	2	0	10	0	12	26	2.50	0	45
Belt	Flour & Feed.....	1914	7,000	40	12,000	1	1	0	11	0	12	26	3.85	0	250
Billings	Flour & Feed.....	1910	200,000	650	138,000	12	13	0	10	0	12	26	2.88	0	450
Bozeman	Flour and Cereals.....	1883	150,000	850	81,000	16	20	0	9	0	12	26	3.00	0	155
Bozeman	Flour and Cereals.....	1889	83,000	200	20,000	5	4	0	9	0	12	26	4.50	0	135
Cascade	Flour and Feed.....	1909	20,000	50	15,000	4	2	0	12	0	12	26	3.85	0	125
Choteau	Flour and Feed.....	1913	20,000	50	15,000	1	0	0	10	0	12	26	3.00	0	25
Conrad	Flour and Feed.....	1914	8,800	25	7,500	1	0	0	10	0	12	26	3.80	0	15
Crow Agency	Flour and Feed.....	1890	10,000	50	15,000	1	2	0	8	0	12	26	4.00	0	50
Fort Benton	Flour and Feed.....	1914	30,000	250	76,000	4	0	0	10	0	12	26	3.20	0	120
Glasgow	Flour and Feed.....	1914	10,000	60	9,000	1	1	0	10	0	12	26	5.00	0	35
Great Falls	Flour and Grain Prods.	1893	450,000	950	285,000	39	23	7	8	7½	12	26	3.00	0	16
Hamilton	Flour and Feed.....	1898	50,000	200	60,000	2	3	1	10	9	12	26	4.00	0	300
Hardin	Flour and Feed.....	1913	15,000	50	18,000	1	1	0	10	0	12	26	4.50	0	100
Harlowton	Flour-Feed Cereal.....	1910	150,000	600	180,000	9	5	1	9	8½	12	26	3.85	0	32
Hobson	Flour and Feed.....	1912	20,000	80	24,000	4	0	0	10	0	12	26	4.80	0	250
Kalispell	Flour-Grain Products.	1902	300,000	350	105,000	8	9	0	8	0	12	26	3.75	0	60
Kalispell	Flour and Feed.....	1910	25,000	150	45,000	1	3	0	9	0	12	26	4.23	0	50
Lavina	Flour and Feed.....	1914	8,000	25	7,500	1	1	0	9	0	12	26	4.42	0	20
Lewistown	Flour-Feed Cereals.....	1912	150,000	350	105,000	5	7	1	9	8½	12	26	3.00	0	100
Manhattan	Flour and Grain.....	1910	50,000	200	60,000	6	3	0	9	0	12	26	4.00	0	100
Meville	Flour and Feed.....	1913	8,000	12	3,500	1	1	0	9	0	12	26	4.00	0	15
Missoula	Flour and Feed.....	1901	210,000	60	18,000	2	1	0	9	0	12	26	4.50	0	100
Park City	Flour and Feed.....	1914	9,000	50	15,000	1	1	0	10	0	12	26	4.00	0	25
Philipsburg	Flour and Feed.....	1912	26,000	100	30,000	1	1	0	10	0	12	26	5.00	0	60
Plains	Flour and Feed.....	1912	15,000	100	20,000	2	0	0	8	0	12	26	4.80	0	30
Poison	Flour and Feed.....	1912	60,000	200	60,000	3	3	0	10	0	12	26	4.10	0	102
Saint Ignatius	Flour and Feed.....	1858	10,000	11	2,640	2	1	0	10	0	12	26	2.50	0	30
Sidney	Flour and Feed.....	1913	75,000	250	60,000	7	9	0	11	0	12	26	4.00	0	125
Stanford	Flour and Feed.....	1914	15,000	75	23,400	2	2	1	9	9	12	26	4.00	0	125
Townsend	Flour and Feed.....	1914	50,000	225	67,825	8	4	1	10	8	12	26	5.55	0	102
Wilsall	Flour and Feed.....	1914	8,000	25	7,825	1	1	0	10	0	12	26	4.00	0	15
Yegen	Flour and Feed.....	1913	8,000	25	7,500	1	1	0	10	0	12	26	4.00	0	15
Total.....	.....	.....	\$2,564,700	5,873	1,899,860	170	145	13	9½	8½	11¾	26	\$4.15	\$2.71	3,435

\*Barrels.

TABLE NO. 22—MONTANA MANUFACTURES—FEED, ALFALFA AND CEREAL MILLS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Empl'y'd Skilled	Males Empl'y'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Female	Days per M'nth Males	Months per Year	Days per M'nth Female	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Billings	Alfalfa	1913	100,000	*30	*9,000	3	15	1	0	0	26	12	26	\$5.00	3.00	2.75	Gasol. & El.	86
Canas	Chopped Feed	1912	800	7	2,100	0	1	0	0	0	0	0	0	0	0	0	Gasoline	10
Conrad	Feed	1912	14,000	12½	3,750	0	1	1	10	10	26	12	26	4.50	3.25	2.50	Gasoline	12
Great Falls	Alfalfa	1913	5,000	25	7,500	1	2	0	10	10	26	9	0	4.00	3.00	0	Electric	15
Hardin	Alfalfa Meal and Hay	1914	14,750	20	5,000	2	5	0	10	10	0	0	0	3.00	2.50	0	Oil	80
Savage	Custom Feed Mill	1912	2,000	10	3,000	1	0	0	0	0	0	0	0	2.50	0	0	Gas	12
Total		....	137,050	104½	30,350	8	23	2	10	8	26	11	26	\$3.86	\$2.94	\$2.62		215

\*Tons.

TABLE NO. 23—MONTANA MANUFACTURES—SMELTERS. CONCENTRATORS, LEACHING AND CYANIDE PLANTS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Empl'y'd Skilled	Males Empl'y'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Kind of Power	Number of Horse Power
Anaconda	Smelter	1902	\$11,715,000	12,000	Tons 4,380,000	866	1732	0	8	0	26	12	0	\$4.37	\$3.12	Electric	19,000
Butte	Ore Samp. Wks.	1909	120,972	1,500	547,500	4	27	0	8	0	26	12	0	4.65	3.00	Electric	90
Butte	Leaching Plant..	1912	500,000	2	600	31	29	0	8	0	30	12	0	4.75	3.00	Electric	650
Butte	Leaching Plant..	1912	100,000	2	720	12	2	0	8	0	30	12	0	6.00	4.00	Electric	350
Butte	Concentrator	1913	80,000	100	30,000	7	19	1	8	8	30	12	26	5.00	3.75	Electric	200
Butte	Concentrator	1905	2,870,000	1,200	400,000	180	30	0	8	0	30	12	0	3.75	3.25	0 S. & E.	3,500
Butte	Smelt. & Conc't.	1905	6,000,000	800	250,000	30	120	0	8	0	30	12	0	5.40	3.65	0 S. & E.	3,500
Corbin	Concentrator	1907	130,000	30	10,800	8	0	0	8	0	30	12	0	3.75	0	Electric	200
East Helena	Smelter	1889	500,000	800	292,000	398	73	1	8	8	30	12	26	3.75	2.43	Electric	750
Great Falls	Smelter	1892	2,850,000	3,500	1,260,000	966	484	0	8	0	30	12	0	4.75	3.12	0 E. & S.	12,600
Kendall	Cyanide Plant..	1906	80,000	200	72,000	6	6	1	8	0	30	12	0	4.50	3.50	0 Electric	200
Monarch	Concentrator	1910	14,600	35	12,600	5	2	0	8	0	26	12	0	3.90	0	Steam	40
Radersburg	Concentrator	1913	20,000	80	24,000	2	10	0	8	0	30	12	0	4.50	3.50	0 Electric	40
Superior	Concentrator	1905	750,000	250	9,000	20	70	5	8	9	30	12	30	4.75	3.75	Electric	750
Virginia City	Concentrator	1896	15,000	50	17,000	3	6	0	8	0	30	12	0	3.50	3.00	Electric	75
Virginia City	Cyanide Plant..	1902	40,000	50	17,000	4	5	0	8	0	30	12	0	4.50	3.50	Electric	155
Zoruman	Cyanide Plant..	1903	100,000	300	85,000	10	52	0	8	0	30	12	0	4.25	3.65	Electric	175
Total			\$25,865,572	20,899	7,408,220	2552	2667	8	8	6 3/4	29	12	27 1/2	\$4.47	\$3.36		41,897 1/2

TABLE NO. 24—MONTANA MANUFACTURERS—FOUNDRIES, REPAIR AND MACHINE SHOPS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Empl'y'd Skilled	Males Empl'y'd Unskilled	Female Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda	Foundry & Mach. Shop	1895	\$.....	550,000 lb iron 16,000 lb. brass	6,600,000 lb. iron 200,000 lb. brass	128	114	0	8	0	26	12	0	\$3.88	\$3.10	0	Steam & Electric	150
Billings	Foundry & Mach. Shop	1909	41,000	150 \$	40,000	15	6	0	8	0	26	12	0	4.00	3.00	0	Electric	80
Butte	Iron & Steel Machin.	1890	100,000	500	150,000	40	14	1	8	7	24	12	0	4.50	3.50	3.00	Electric	100
Butte	Brss., Brnz., Im., Cst.	1883	24,000	250	90,000	24	16	1	8	7½	26	12	24	5.10	3.85	1.70	Electric	78
Gt. Falls	Mill. & Min. Mach...	1890	62,500	150,000 lb iron	4,000,000 lb. iron	29	38	0	8	0	28	12	0	4.56	2.75	0	Electric	30
Gt. Falls	Gas Traction Engines.	1912	70,000	.....	50 Engs.	7	2	0	8	0	26	12	0	4.00	3.00	0	Electric	64
Helena	Gas Machines	1911	2,400	500	150,000	5	0	0	8	0	26	12	0	0	0	0	Electric	7½
Helena	Found. & Mach. Wks.	1910	3,000	25	4,680	5	3	0	9	0	26	12	0	5.00	3.00	0	Electric	20
Helena	Mining Machinery...	1895	50,000	200	60,000	12	0	1	9	9	26	12	26	4.75	3.00	4.00	Electric	20
Kalspell	Foundry & Mach. Shop		35,000	2,000 lb.	600,000 lb.	6	2	0	9	0	26	12	0	4.00	3.00	0	Electric	20
Lewistown	Machine Shop	1909	9,000	20 \$	5,000	2	0	0	8	0	26	12	0	4.00	0	0	Electric	5
Total..	.....	....	\$396,300	.....	.....	273	195	38	3-11	7 5-6	25 9-11	12	25	\$4.38	\$3.14	\$2.90		554½

TABLE NO. 25—MONTANA MANUFACTURES—STEAM BAKERIES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda	Baking	1908	\$ 6,000	35	\$ 12,700	2	0	2	9	26	12	26	\$4.25	\$0.00	\$1.00	Electric	2½
Bait	Baking	1884	4,000	70	18,000	3	1	1	8½	26	12	26	4.50	4.00	1.00	Electric	2
Big Timber	Baking	1910	1,000	15	5,000	0	1	1	10	9	12	26	3.00	0	1.00	Electric	2
Billings	Baking	1909	4,000	20	6,000	3	0	1	9	26	12	26	3.00	0	1.33	Electric	2
Billings	Baking	1910	3,000	30	9,000	2	3	1	9	26	12	26	3.25	2.95	1.67	Electric	2
Bozeman	Baking	1910	4,500	120	37,000	2	1	1	8½	26	12	26	4.90	3.66	2.50	Electric	2
Bozeman	Baking	1906	4,500	30	108,000	1	1	1	9	26	12	26	4.00	1.25	1.25	Electric	2
Butte	Baking	1908	1,500	50	15,000	1	1	1	8	26	12	26	3.00	2.00	1.00	Electric	2
Butte	Baking	1909	4,000	30	10,000	2	4	2	10	26	12	26	4.50	3.50	1.25	Electric	20
Butte	Baking	1880	4,000	100	36,000	4	1	1	8	26	12	26	4.50	2.00	2.10	Electric	5
Butte	Baking	1901	5,000	125	40,000	2	2	0	8	26	12	0	5.00	2.25	0	Electric	2
Butte	Baking	1906	3,000	60	21,500	2	2	3	8	26	12	26	4.50	2.00	2.00	Electric	2
Butte	Baking	1912	800	30	8,000	1	1	0	8	26	12	0	4.50	2.00	0	Electric	2
Chinook	Baking	1911	1,000	40	13,000	1	0	0	8	26	12	0	3.00	0	0	Electric	2
Conrad	Baking	1909	4,000	20	6,000	1	1	1	10	26	12	26	4.00	1.66	1.66	Electric	2
Culbertson	Baking	1911	2,000	15	4,500	0	1	1	9	26	12	26	1.25	1.00	1.25	Electric	2
Deer Lodge	Baking	1912	2,500	40	12,000	1	1	0	9	26	12	0	5.00	3.00	0	Electric	2
Deer Lodge	Baking	1911	750	15	4,500	0	2	0	8	26	12	0	0	2.00	0	Electric	2
Forsyth	Baking	1910	4,000	80	25,000	5	2	0	10	30	12	0	3.00	1.50	0	Electric	2
Glasgow	Baking	1909	5,000	40	12,000	2	0	2	10	30	12	0	3.50	0	1.50	Electric	5
Great Falls	Baking	1913	5,000	60	20,000	2	0	0	10	30	12	0	3.50	0	0	Electric	2½
Great Falls	Baking	1910	2,000	30	9,000	2	3	1	9	26	12	26	4.00	3.00	0	Electric	2½
Great Falls	Baking	1901	2,000	40	12,000	1	1	0	9	26	12	0	4.00	2.50	0	Electric	5
Great Falls	Baking	1894	6,000	40	12,000	2	0	0	10	26	12	0	3.50	0	0	Electric	5
Great Falls	Baking	1888	18,000	25	7,500	9	1	1	9	26	12	26	4.00	2.00	2.00	Electric	3
Harlowton	Baking	1912	300	10	3,500	0	3	1	9	26	12	26	4.00	0	1.50	Electric	3
Harlowton	Baking	1895	10,000	35	11,000	0	0	1	9	26	12	26	3.00	0	0	Electric	2
Helena	Baking	1911	39,500	373	117,000	14	7	23	9	26	12	26	4.75	2.00	1.60	Electric	16
Helena	Baking	1889	10,000	100	30,000	5	1	1	10	26	12	26	3.00	1.80	1.25	Electric	3
Kalispell	Baking	1903	1,000	10	3,500	1	0	1	8	26	12	0	4.00	0	0	Electric	2
Kalispell	Baking	1892	15,000	85	31,000	8	2	0	8	26	12	0	3.00	0	0	Electric	2
Lewistown	Baking	1910	6,000	50	15,000	0	3	1	10	26	12	26	4.50	0	1.66	Electric	2
Lewistown	Baking	1913	3,000	42	12,600	2	0	0	9	26	12	26	4.00	2.00	2.50	Electric	2½
Lewistown	Baking	1908	6,000	125	33,000	4	4	1	10	26	12	26	3.10	2.00	2.00	Electric	5
Miles City	Baking	1907	12,000	85	30,000	4	2	1	10	26	12	26	3.10	2.00	2.00	Electric	5

TABLE NO. 25—(CONTINUED)—MONTANA MANUFACTURES—STEAM BAKERIES.

Miles City	Baking	1914	1,200	25	7,000	0	1	110	9	26	12/26	0	1.35	1.35	0	
Missoula	Baking	1908	15,000	100	35,000	3	3	0	9	0	26	4.25	3.10	0	Electric	
Missoula	Baking	1883	1,000	25	7,200	1	0	0	8	0	26	4.00	0	0	Electric	
Missoula	Baking	1911	1,000	25	7,500	0	1	110	8	26	12	4	0	2.50	2.00	
Moore	Baking	1908	11,200	13	4,800	0	1	110	9	30	12	3	0	1.50	1.33	
Pennywood	Baking	1912	500	30	9,000	1	1	110	9	26	12/26	3.08	1.35	1.15	0	
Polson	Baking	1910	3,000	40	12,000	1	1	110	9	26	12/30	3.90	2.50	2.10	0	
Red Lodge	Baking	1900	2,000	30	10,000	2	1	0	8	0	26	3.00	2.95	0	2.35	
Roundup	Baking	1910	6,000	50	15,000	1	2	1	9	9	26	4.00	3.00	2.35	0	
Three Forks	Baking	1908	3,000	35	13,000	1	0	1	9	9	26	4.25	0	2.00	0	
Total.....	.....	.....	\$240,850	\$2,448	\$870,800	102	59	61	9%	8%	26%	12	25%	\$3.92	\$2.28	\$1.60

TABLE NO. 26—MONTANA MANUFACTURES—NURSERIES AND GREENHOUSES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Females	Kind of Power	Horse Power Number of
Billings.....	Nursery Stock	1907	\$ 25,000	\$ 68,000	\$ 20,000	1	5	1	10	9	26	12	30	\$3.25	\$2.50	\$1.00	Steam	80
Bozeman....	Cut Flowers & Plants	1900	30,000	21,500	6,500	1	2	0	8	9	26	12	0	3.00	2.50	....	Steam	60
Butte.....	Cut Flowers & Plants	1899	36,000	150,000	50,400	0	26	0	8	9	26	12	0	5.00	3.50	....	....	....
Butte.....	Flowers, Not Commercial	1899	0	0	0	0	0	0	8	9	26	12	0	3.50	....	4.00	....	....
Butte.....	Cut Flowers & Plants	1907	1,000	35,000	12,600	0	2	0	8	8	0	12	26	3.33	1.00	....	....	....
Dillon.....	Cut Flowers & Plants	1906	5,000	10,000	5,000	1	2	0	8	0	30	12	0	3.00	1.00	....	....	....
Great Falls	Vegetables & Flowers	1913	12,000	17,500	5,500	2	1	0	9	0	26	12	0	1.95	1.75	....	....	....
Great Falls	Cut Flowers & Plants	1893	15,000	20,000	5,000	1	3	0	8	0	26	12	0	3.00	2.70	1.50	....	....
Great Falls	Cut Flowers & Plants	1890	9,000	23,000	7,000	2	3	0	9	8	26	12	0	3.00	2.50	2.50	....	....
Helena.....	Cut Flowers & Plants	1908	5,000	10,000	3,600	3	0	1	9	8	26	12	0	3.00	2.75	1.00	....	....
Helena.....	Potted Plants & Flowers	1891	15,000	33,333	100,000	24	13	0	9	9	26	12	26	3.00	2.50	1.00	....	....
Kalispeil....	Trees	1908	20,000	23,000	10,000	1	3	0	0	0	26	12	26	3.00	2.50	1.00	....	....
*Livingston..	Vegetables	1908	5,000	10,000	10,000	0	0	0	0	0	26	12	0	3.00	2.00	....	Steam	40
Missoula....	Cut Flowers & Plants	1909	10,000	18,000	6,500	1	2	0	8	9	26	12	26	4.15	2.50	2.50	....	....
Missoula....	Nursery, Flowers & Plants	1892	100,000	160,000	50,000	6	6	2	9	9	26	12	26	3.50	1.80	1.50	....	....
Missoula....	Potted Plants & Cut Flowers	1911	15,000	28,000	8,400	1	1	1	8	8	26	12	26	3.50	1.80	1.50	....	....
Total .....	.....	.....	\$303,000	\$937,333	\$295,500	76	46	8	8%	8½	27	12/27	3.23	\$2.32	\$2.00	.....	.....	180

\*Operated by owner.

TABLE NO. 27—MONTANA MANUFACTURES—MONUMENTAL WORKS.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Female Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Billings	Cemetery Supplies	1896	\$ 12,276	\$ 50.00	\$ 15,890	4	0	0	8	8	26	12	23	\$6.00	\$ 3.75	\$ ...	Elec.	5
Butte	Tomstones	1903	48,590	166.00	43,060	11	3	1	8	8	23	12	23	8.50	3.75	1.80	Elec.	15
Butte	Monuments	1903	1,500	30.00	9,000	4	0	0	8	8	20	12	0	6.00	3.00	...	Elec.	75
Great Falls	Monuments	1883	25,000	133.00	40,000	15	10	0	8	8	26	12	0	5.00	3.75	...	Elec.	10
Helena	Monuments	1888	10,000	150.00	30,000	12	12	0	8	8	26	12	0	6.00	3.75	...	Elec.	105 1/2
Helena	Monuments	1909	1,000	5.00	1,500	0	0	0	8	8	26	12	0	5.00	...	...	Elec.	
Kalspell	Monuments	1911	30,000	50.00	13,500	3	0	0	8	8	26	12	0	6.00	...	...	Elec.	
Missoula	Monuments	1899	7,000	26.00	8,000	3	0	0	8	8	26	12	0	6.00	...	...	Elec.	
Total			\$134,966	\$810.00	\$166,950	52	25	1	8	8	25	11	25	\$6.00	\$3.50	\$1.80		105 1/2

\*Operated by owner.

TABLE NO. 28—MONTANA MANUFACTURES—DRUG MANUFACTURES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Female Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Butte	Drugs, Chem. & Toilet Prep.	1891	\$ 50,000	\$100.00	\$300,000	8	4	2	10	9	26	12	26	\$5.00	\$3.50	\$2.00	Hand	
Helena	Toilet Articles	1907	2,000	50.00	12,000	0	0	1	0	9	26	12	26	3.85	1.75	...	Hand	
Helena	Patent Medicines	1893	1,000	50.00	15,000	1	1	0	0	8	26	12	0	3.85	1.75	...	Hand	
Total			\$ 53,000	\$200.00	\$327,000	9	5	3	10	8 3/4	26	12	26	\$4.42	\$2.52	\$2.50		

TABLE NO. 29—MONTANA MANUFACTURES—BUTTER CREAMERIES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Females Employ'd	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Females	Kind of Power	Number of Horse Power
Augusta	Butter	1911	2,000	150	45,000	1	0	0	0	26	0	0	\$3.00	\$ .00	\$ .00	Steam	10
Big Timber	Butter	1914	2,000	150	45,000	1	0	0	0	26	12	0	3.00	2.50	1.85	Steam	15
Billings	Butter	1911	27,400	772	281,856	15	4	4	9	26	12	26	4.90	4.00	2.25	Electric	15
Bozeman	Butter	1913	3,000	1,000	365,000	22	0	0	0	26	12	26	10.00	3.50	2.25	Electric	181
Butte	Butter	1889	1,000,000	10,000	3,000,000	28	19	9	9	26	12	26	4.30	3.90	...	Steam	8
Cascade	Butter	1905	2,100	350	44,000	2	0	0	0	26	12	0	4.75	1.65	...	Steam	60
Chinook	Butter	1904	15,000	500	75,000	2	1	0	0	26	12	0	3.50	2.50	...	Steam	6
Choteau	Butter	1909	5,500	500	100,000	1	1	0	0	26	12	0	2.85	1.50	...	Gasoline	12
Clyde Park	Butter	1905	4,500	200	60,000	1	1	0	8	26	12	0	3.50	2.50	...	Steam	10
Conrad	Butter	1913	7,500	500	150,000	1	0	0	8	26	12	0	3.50	2.50	...	Steam	10
Culbertson	Butter	1914	5,000	300	90,000	1	0	0	8	26	0	0	4.10	3.00	2.00	Steam	10
Eden	Butter	1905	4,500	333	100,000	1	0	0	10	26	12	0	5.40	3.00	2.00	S. & Elec.	13
Great Falls	Butter	1910	30,000	3,000	900,000	8	3	7	9	26	12	26	3.25	3.00	...	Electric	20
Great Falls	Butter	1908	5,000	100	120,000	1	0	0	9	26	12	0	3.50	2.00	...	Electric	6
Great Falls	Butter	1907	1,000	400	30,000	1	1	0	9	26	12	0	3.25	3.00	...	Electric	3
Hamilton	Butter	1914	6,500	750	343,750	1	2	1	11	26	12	26	3.50	2.00	...	Electric	20
Hamilton	Butter	1911	2,500	75	22,500	0	1	0	10	26	12	0	5.00	2.50	2.00	Electric	8
Havre	Butter	1911	5,000	1,000	300,000	1	2	1	9	26	12	26	5.00	2.50	2.00	Steam	10
Helena	Butter	1914	1,500	100	100,000	2	1	0	10	26	12	0	3.00	2.50	...	Steam	10
Hot Springs	Butter	1914	1,500	200	60,000	1	0	0	10	26	12	0	3.00	2.50	...	Steam	12
Kalspell	Butter	1898	1,500	200	60,000	1	4	0	9	26	12	0	3.33	2.25	...	Steam	16
Laurel	Butter	1906	6,000	500	150,000	2	1	0	10	26	12	0	5.00	2.25	...	Gasoline	5 1/2
Lewistown	Butter	1914	4,000	600	18,000	0	0	0	8	26	12	0	...	...	...	Electric	15
Livingston	Butter	1914	15,000	1,000	400,000	1	0	0	8	26	12	0	3.33	2.25	...	Electric	6
Malta	Butter	1913	6,500	500	150,000	1	0	0	0	26	12	0	3.33	2.25	...	Electric	20
Manhattan	Butter	1913	15,000	1,000	365,000	2	0	0	8	26	12	0	3.33	2.25	1.00	Electric	13
Miles City	Butter	1910	5,000	1,700	21,000	1	3	1	9	26	12	26	3.33	2.25	1.55	Electric	15
Missoula	Butter	1909	20,000	30	12,000	1	1	0	0	26	12	0	3.50	2.00	2.00	Steam	12
*Phillipsburg	Butter	1913	1,500	200	10,000	0	0	0	0	26	12	0	3.45	...	...	Gasoline	6
*Plentywood	Butter	1914	6,000	150	45,000	1	0	0	8	26	12	0	3.45	...	...	Steam	10
*Polson	Butter	1913	6,500	1,000	36,500	2	0	0	8	26	12	0	4.45	...	...	W. & S.	18
Pony	Butter	1909	5,600	150	45,000	1	0	0	8	26	12	0	4.45	...	...	Steam	8
Red Lodge	Butter	1906	5,500	400	125,000	1	1	0	10	26	12	0	3.25	1.00	...	Steam	12
Saco	Butter	1914	7,100	200	60,000	1	0	0	8	26	12	0	3.45	...	...	Electric	33
Sidney	Butter	1913	5,000	800	241,600	1	1	0	10	26	12	0	3.45	...	...	Gasoline	1
Stevensville	Butter	1907	6,000	1,000	300,000	10	0	0	8	26	12	0	3.00	...	...	Gasoline	0
Star River	Butter	1913	1,000	150	34,000	1	0	0	8	26	12	0	3.33	2.60	1.15	Electric	12
*Terry	Butter	1913	1,000	150	34,000	1	0	0	8	26	12	0	3.33	2.60	1.15	Electric	12
Townsend	Butter	1904	5,500	1,000	360,000	2	1	1	8	26	12	26	3.33	2.60	1.15	Electric	627 1/2
Total			\$1,258,200	29,970	8,668,326	83	61	37	9%	26	11%	26	\$4.00	\$2.31	\$1.64		

\*Operated by owner.

TABLE NO. 30—MONTANA MANUFACTURES—CHEESE FACTORIES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity lbs.	Yearly Capacity lbs.	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Corvallis .....	Cheese .....	1912	\$ 12,000	1,000	150,000	3	3	0	9	0	26	12	0	\$3.85	\$3.00	.00	Steam	20
Fort Shaw .....	Cheese .....	1913	1,400	200	60,000	1	0	0	8	0	26	12	0	3.00	....	....	Hand	0
Judith Gap .....	C. & Cream .....	1914	1,200	4,000	768,000	1	0	0	8	0	26	12	0	3.00	....	....	S. & Gaso.	3
Total .....			\$ 14,600	5,200	978,000	5	3	0	8½	0	26	12	0	\$3.28	\$3.00	....		23

TABLE NO 31—MONTANA MANUFACTURES—BRICK AND CLAY FACTORIES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Female	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Number of Horse Power
Anaconda .....	Brick .....	1895	\$ 6,000	10,000	3,000,000	13	23	0	8	0	26	12	0	\$3.87	\$3.12	0	Electric	100
Billings .....	Brick .....	1913	10,000	20,000	1,500,000	5	16	0	8	0	26	5	0	3.75	3.00	0	Horses	25
Bozeman .....	Brick .....	1905	10,000	25,000	3,000,000	4	20	0	8	0	26	6	0	5.00	3.00	0	Electric	50
Butte .....	Brick .....	1905	4,000	12,000	1,000,000	2	6	0	8	0	26	3	0	4.00	3.00	0	Horse	30
Deer Lodge .....	Brick and Tile .....	1889	100,000	30,000	5,000,000	6	30	0	8	0	26	7	0	4.25	3.50	0	Electric	100
Fromberg .....	Brick .....	1910	6,000	20,000	3,500,000	4	11	0	9	0	26	5	0	4.25	3.25	0	Steam	200
Great Falls .....	Brick .....	1908	33,000	20,000	4,000,000	9	9	0	8	0	26	8	0	4.35	3.28	0	Electric	100
Hamilton .....	Brick .....	1911	100,000	45,000	6,000,000	3	15	0	9	0	26	9	0	6.00	3.00	0	Horse	200
Helena .....	Brick .....	1909	5,000	24,000	3,500,000	1	7	0	29	0	26	2	0	5.00	3.00	1.15	Horses	200
Kalispell .....	Brick, Tile, Clay Prod. ....	1905	60,000	120,000	30,000,000	3	45	0	8	0	26	9	0	4.50	3.50	0	Steam	25
Lewistown .....	Brick .....	1900	4,000	20,000	1,000,000	2	10	0	10	0	26	3	0	4.00	3.00	0	Electric	150
Livingston .....	Brick .....	1911	75,000	16,000	25,000,000	5	13	0	8	0	26	12	0	4.20	3.00	0	Horses	10
Miles City .....	Brick .....	1904	6,000	30,000	800,000	2	5	0	8	0	26	6	0	3.50	3.00	0	Electric	85
Missoula .....	Brick and Tile .....	1890	3,000	11,500	800,000	12	0	0	17½	0	26	4	0	3.45	0	0	Steam	500
Missoula .....	Brick .....	1890	25,000	45,000	13,500,000	0	14	0	8	0	26	8	0	3.00	0	0	Electric	50
Musselshell .....	Brick .....	1908	10,000	28,000	6,500,000	0	9	0	8	0	26	9	0	5.00	3.50	0	Horse	50
Poison .....	Brick .....	1909	5,000	10,000	4,000,000	4	4	0	8	0	26	2	0	3.00	0	0	Electric	50
Whitefish .....	Brick .....	1911	20,000	35,000	9,000,000	0	20	0	10	0	26	6	0	4.00	3.00	0	Electric	50
Total .....		1903	25,000	15,000	800,000	3	4	0	9	0	26	4	0	4.00	3.00	0		1575
Total .....			\$509,000	538,500	178,420,000	78	306		28½	9	26	6½	26	\$4.32	\$3.23	\$1.15		

In addition to the total of 178,420,000 bricks, there is a yearly output of 11,401,000 tiles and 100,000 lbs. of fire clay.

TABLE NO. 32—MONTANA MANUFACTURES—MEAT PACKING AND SLAUGHTERING PLANTS.

Postoffice	Goods manufactured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Female	Days per M'nth Males	Months per Year	Days per M'nth Female	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power	Horse Power
Anaconda	Meats	1901	\$ 120,000	* 77 ** 23,100 *** 8	7,500 23,100 2,400	8	1	1	10	10	26	12	26	\$4.34	\$2.70	\$2.00	Electric	50
Billings	Meats	1893	15,000	* 11 ** 3,000 *** 10	3,300 3,000 3,000	16	0	0	9	9	26	12	30	3.50	0	2.90	Electric	40
Billings	Meats	1911	5,000	* 5 ** 1,500 *** 5	1,500 1,500 1,500	8	0	0	8	0	26	12	0	4.15	0	3.00	Stm.-Elec.	230
Butte	Meats	1910	35,000	* 48 ** 14,500 *** 3	14,500 3,900 3,900	3	12	1	10	10	26	12	30	4.50	2.00	1.66	Stm.-Elec.	40
Butte	Meats	1911	35,000	* 60 ** 18,000 *** 10	18,000 3,000 3,000	3	3	2	8	8	26	12	25	4.80	3.00	3.00	Steam	40
Great Falls	Meats		200,000	* 16 ** 5,000 *** 7	5,000 2,000 2,000	9	0	0	10	0	26	12	0	4.00	0	0	Electric	87½
Helena	Meats	1889	5,000	* 10 ** 3,500 *** 10	3,500 3,500 3,500	5	0	0	8	0	26	12	0	4.00	0	0	Steam	5
Missoula	Meats	1910	100,000	* 8 ** 2,400 *** 5	2,400 1,500 1,500	13	12	1	10	8	26	12	26	4.00	3.00	2.25	Electric	5
Total			515,000	* 88 ** 234 *** 59	26,600 71,000 16,600	65	28	6	9½	9	26	12	27½	\$4.16	\$2.67	\$2.47		497½

\* Reeves.  
\*\* Sheep.  
\*\*\* Hogs.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity feet	Yearly Capacity feet	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Female	Kind of Power	Number of Horse Power
Anaconda ..	Laundering..	1893	\$ 30,000	\$115	\$ 33,000	9	0	12	9	8½	26	12	26	\$ 4.50	\$ 3.00	\$2.25	S. & Elec.	20
Billings ....	Laundering..	1906	40,000	253	80,360	17	0	12	9	8	26	12	26	3.50	3.00	1.60	Steam	100
Boulder .....	Laundering..	1912	1,300	10	3,000	0	0	4	9	8	0	12	30	1.00	1.00	1.28	Electric	5
Bozeman .....	Laundering..	1911	25,000	90	28,400	30	4	13	8	8	26	12	26	3.00	3.00	1.85	Steam	25
Butte .....	Laundering..	1892	170,000	500	150,000	30	0	63	8	8	26	12	26	4.25	3.75	1.85	Steam	125
Butte .....	Laundering..	1910	30,000	250	78,000	19	0	33	8	8	26	12	26	3.75	3.75	1.90	Steam	35
Butte .....	Laundering..	1905	135,000	366	114,400	21	0	58	8	8	26	12	26	5.00	3.00	2.37	S. & Elec	250
Chinook .....	Laundering..	1911	45	12,000	12,000	3	0	4	9	8	26	12	26	3.00	3.00	2.00	Steam	10
Choteau .....	Laundering..	1908	3,500	15	4,500	0	0	2	9	9	0	12	20	...	...	2.00	S. & Gazo.	12
Conrad .....	Laundering..	1912	3,530	50	12,000	0	2	9	9	9	24	12	24	3.00	3.00	2.00	Steam	25
Deer Lodge ..	Laundering..	1910	8,000	75	20,400	4	0	11	9	9	24	12	24	4.25	4.25	2.00	Steam	12
Dillon .....	Laundering..	1903	8,000	50	15,000	1	1	9	9	9	26	12	26	3.50	3.50	2.75	Steam	10
Forsyth .....	Laundering..	1912	8,000	50	10,000	1	1	5	8½	8	26	12	26	3.00	3.00	1.66	Steam	20
Fort Benton ..	Laundering..	1913	1,200	50	15,000	3	1	2	2	30	26	12	16	4.00	4.00	2.00	Electric	10
Glendive .....	Laundering..	1907	7,000	60	18,000	4	1	7	10	9	26	12	26	3.66	3.66	2.00	Steam	20
Great Falls ..	Laundering..	1887	17,000	225	70,000	16	0	36	9	9	26	12	26	3.30	3.30	1.50	Steam	100
Great Falls ..	Laundering..	1911	20,000	275	82,500	12	0	32	9	9	26	12	26	4.25	4.25	2.00	S. & Elec.	40
Great Falls ..	Laundering..	1912	4,000	175	45,500	3	0	11	9	9	26	12	26	3.25	3.25	2.25	Electric	7
Hamilton .....	Laundering..	1906	15,000	40	12,400	2	1	1	9	9	26	12	26	4.00	4.00	2.25	Electric	5
Harlowton .....	Laundering..	1913	3,000	15	4,500	1	1	1	9	9	26	12	26	3.95	3.95	2.10	Gasoline	7
Hayre .....	Laundering..	1904	7,500	200	62,200	1	4	20	9	9	26	12	26	3.50	3.50	2.50	Steam	30
Helena .....	Laundering..	1899	43,096	300	93,300	9	1	23	9	9	26	12	26	4.30	4.30	2.50	S. & Elec.	25
Helena .....	Laundering..	1899	432	150	45,000	4	0	20	8	6½	26	12	26	4.00	4.00	2.42	Steam	18
Helena .....	Laundering..	1900	15,000	150	45,000	4	0	27	9	9	26	12	26	3.00	3.00	1.80	Electric	7
Kalspell .....	Laundering..	1910	5,000	60	21,163	3	0	5	9	9	28	12	28	2.66	2.66	1.80	Electric	15
Kalspell .....	Laundering..	1900	15,000	73	22,850	1	2	13	9	9	26	12	26	2.00	2.00	2.00	S. & Elec.	15
Kalspell .....	Laundering..	1898	20,000	75	15,000	1	2	10	9	9	26	12	26	4.10	4.10	2.00	Electric	36
Lewistown .....	Laundering..	1900	15,000	400	125,000	5	1	25	9	9	26	12	26	3.50	3.50	2.00	Electric	7½
Lewistown ..	Laundering..	1911	10,000	45	10,400	3	0	7	9	9	24	12	24	3.00	3.00	1.50	Steam	15
Libby .....	Laundering..	1913	4,000	15	1,680	1	0	2	10	9	26	12	26	3.50	3.50	2.00	Steam	15
Livingston .....	Laundering..	1912	15,000	83	22,500	1	8	14	10	9	27	12	27	4.00	4.00	2.50	Electric	15
Livingston ..	Laundering..	1912	10,000	71	22,000	4	2	11	10	9	26	12	22	3.50	3.50	1.62	Steam	70
Miles City .....	Laundering..	1900	25,000	125	38,625	2	4	20	9	9	26	12	26	4.40	4.40	2.85	Steam	70
Missoula .....	Laundering..	1890	25,000	500	156,300	8	0	25	9	9	26	12	26	3.00	3.00	2.10	Electric	50
Missoula .....	Laundering..	1909	20,000	125	37,500	4	5	19	9	9	26	12	26	4.37	4.37	3.08	Electric	20
Missoula .....	Laundering..	1910	10,000	125	39,000	5	0	13	9	9	26	12	26	4.50	4.50	2.15	Steam	15
Red Lodge .....	Laundering..	1900	10,750	70	17,500	6	3	0	8½	9	25	12	25	5.00	5.00	2.50	Steam	30
Roundup .....	Laundering..	1910	7,500	65	4,225	3	0	6	9	9	26	12	26	3.00	3.00	2.32	Steam	7
Stevensville ..	Laundering..	1912	3,000	95	8,400	0	0	3	0	9	0	12	28	...	...	1.75	Steam	40
Three Forks ..	Laundering..	1912	3,000	20	6,000	2	0	5	8½	8	28	12	28	3.75	3.75	1.40	Electric	12
Trident .....	Laundering..	1912	2,000	8	2,400	1	0	1	8	8	24	12	24	2.50	2.50	2.00	Electric	10
Whitefish .....	Laundering..	1909	2,500	35	10,000	3	0	1	8	8	24	12	24	3.33	3.33	2.25	S. & Elec.	45
Wisdom .....	Laundering..	1910	4,000	8	2,400	0	1	1	8	8	26	12	26	...	...	2.00	S. & Gazo.	6
Total .....	.....	.....	\$806,846	5725	\$1,702,500	219	48	681	8%	8½	25%	12	25%	\$3.86	\$2.53	\$2.07	.....	1426½

\*Apprentices.

TABLE NO. 34—MONTANA MANUFACTURES—CANDY FACTORIES.

		Number of Horse Power	
		12	16
	Kind of Power	Electric	
		12	16
	Wages Females	\$1.35	
		\$1.50	
	Av. Wage per Day Unskilled	\$2.54	
		2.00	
	Av. Wage per Day Skilled	\$4.67	
		4.75	
	Days per M'nth Females	26	
		26	
	Months per Year	12	
		12	
	Days per M'nth Males	26	
		26	
	Hours per Day Females	9	
		9	
	Hours per Day Males	9	
		9	
	Females Employed	28	
		11	
	Males Empl'y'd Unskilled	9	
		4	
	Males Empl'y'd Skilled	11	
		7	
	Yearly Capacity	\$125,000	
		\$55,500	
	Daily Capacity	\$400	
		\$185	
	Capital Invested	\$10,000	
		\$19,500	
	Date when Established	1904	
		1911	
	Goods manu- factured or handled	Confectionery ....	
		Confectionery ....	
Postoffice		.....	
		Total .....	
Butte .....			
Helena .....			
Total .....			

TABLE NO. 35—MONTANA MANUFACTURES—CIGAR MANUFACTURES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity Cigars	Yearly Capacity Cigars	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Skilled	Av. Wage per Day Unskilled	Wages Females	Kind of Power
Anaconda	Cigars	1895	1,500	500	125,000	1	0	1	8	8	25	12	25	\$4.50	\$.00	\$3.00	Hand
Anaconda	Cigars	1896	4,500	1,000	300,000	2	2	0	8	8	26	12	26	0	5.25	1.00	Hand
Anaconda	Cigars	1898	2,000	850	250,000	1	0	0	8	8	26	12	26	0	4.00	1.50	Hand
Anaconda	Cigars	1912	600	300	93,000	1	0	0	8	8	26	12	26	0	4.75	1.15	Hand
Baker	Cigars	1911	700	200	60,000	1	0	0	8	8	24	12	24	0	3.75	1.00	Hand
Billings	Cigars	1911	400	700	130,000	1	0	0	8	8	26	12	26	0	4.00	1.00	Hand
Billings	Cigars	1898	7,500	650	200,000	1	0	0	8	8	26	12	26	0	4.50	...	Hand
Billings	Cigars	1911	500	125	37,500	0	0	0	8	8	26	12	26	0	...	...	Hand
Billings	Cigars	1912	500	150	50,000	0	0	0	8	8	0	0	0	0	...	...	Hand
Bozeman	Cigars	1888	1,100	500	143,000	3	0	0	8	8	24	12	24	0	3.00	...	Hand
Bridge	Cigars	1912	300	200	50,000	1	0	0	8	8	23	12	23	0	4.00	...	Hand
Butte	Cigars	1912	1,000	200	143,000	1	0	0	8	8	25	12	25	0	4.50	...	Hand
Butte	Cigars	1912	1,500	89	300,000	4	0	0	8	8	24	12	24	0	4.25	1.75	Hand
Butte	Cigars	1900	1,500	400	20,650	1	0	0	8	8	26	12	26	0	4.25	...	Hand
Butte	Cigars	1912	1,500	300	120,000	2	0	1	8	8	28	12	28	0	4.75	1.75	Hand
Butte	Cigars	1913	1,000	250	100,000	1	1	0	8	8	26	12	26	0	5.00	1.17	Hand
Chinook	Cigars	1904	600	80	24,000	0	0	0	8	8	0	0	0	0	4.25	...	Hand
Conrad	Cigars	1911	200	200	40,000	1	0	0	8	8	26	12	26	0	...	...	Hand
Deer Lodge	Cigars	1912	200	40	12,000	0	0	0	6	6	0	0	0	0	6.00	...	Hand
Dillon	Cigars	1911	1,500	300	75,000	1	0	0	8	8	20	12	20	0	5.00	...	Hand
Dillon	Cigars	1900	1,000	800	250,000	0	0	0	8	8	24	12	24	0	3.83	...	Hand
Dillon	Cigars	1911	2,000	600	150,000	2	0	0	8	8	26	12	26	0	4.25	1.67	Hand
Froid	Cigars	1913	150	50	15,000	0	0	0	0	0	0	0	0	0	...	...	Hand
Gardiner	Cigars	1911	1,000	250	78,000	0	0	1	8	8	26	12	26	0	4.50	1.50	Hand
Glendive	Cigars	1904	2,000	500	150,000	3	2	0	8	8	24	12	24	0	4.25	...	Hand
Great Falls	Cigars	1908	1,500	40	12,000	1	0	0	8	8	24	12	24	0	3.75	...	Hand
Great Falls	Cigars	1900	2,700	700	190,000	1	0	0	8	8	26	12	26	0	4.75	1.50	Hand
Great Falls	Cigars	1912	350	200	62,400	1	0	1	8	8	26	12	26	0	4.38	...	Hand
Great Falls	Cigars	1911	700	500	120,000	1	0	1	8	8	24	12	24	0	4.75	1.63	Hand
Great Falls	Cigars	1913	500	150	45,000	0	0	0	8	8	0	0	0	0	4.50	...	Hand
Greycliff	Cigars	1902	500	200	50,000	1	0	0	8	8	26	12	26	0	4.50	...	Hand
Hamilton	Cigars	1912	3,000	250	50,000	1	1	0	8	8	26	12	26	0	4.38	3.00	Hand
Havre	Cigars	1912	2,000	1,600	270,000	4	2	1	8	8	24	12	24	0	4.25	2.00	Hand
Helena	Cigars	1911	600	800	100,000	2	0	0	8	8	26	12	26	0	4.75	...	Hand
Helena	Cigars	1890	5,000	800	240,000	1	0	0	8	8	26	12	26	0	4.50	...	Hand
Kalispell	Cigars	1886	1,500	400	120,000	1	1	0	8	9	26	12	26	0	3.75	1.00	Hand



TABLE NO. 35—MONTANA MANUFACTURES—MISCELLANEOUS INDUSTRIES.

Postoffice	Goods manu- factured or handled	Date when Established	Capital Invested	Daily Capacity	Yearly Capacity	Males Employ'd Skilled	Males Employ'd Unskilled	Females Employed	Hours per Day Males	Hours per Day Females	Days per M'nth Males	Months per Year	Days per M'nth Females	Av. Wage per Day Unskilled	Av. Wage per Day Skilled	Wages Females	Kind of Power	Number of Horse Power
Billings....	Sugar	1906	\$1,250,000	2,000 tn bts	228,945	50	427	3	10½	9	26	4	26	25-30c	30-55c	\$2.90	St'm	4900
Billings....	Bridge, Vehicles	1913	6,000	\$ 75	\$20,000	3	3	0	8	0	26	12	0	3.00	4.50	0	Elec	15
Billings....	Doors, Sashes...	1908	140,000	200	60,000	19	7	0	9	0	26	12	0	3.00	4.50	0	Elec	300
Billings....	Mattresses, Exc	1908	3,500	75	20,000	3	0	1	9	8	26	12	26	2.00	3.00	0	Elec	10
Billings....	Tents, Canvas	1911	3,000	20	6,000	0	0	0	9	0	0	12	26	2.50	0	0	Elec	42
Bozeman....	Hides Tanned...	1909	1,000	5	1,500	0	0	1	9	0	0	6	15	0	0	2.00	St'm	4½
Butte....	Vehicles	1880	30,000	150	45,000	12	0	0	0	0	26	12	0	4.36	4.36	0	Elec	15
Butte....	Fences Fire Esc.	1912	12,003	100	25,000	6	4	0	8	0	26	12	26	2.62	5.50	0	Elec	10
Butte....	Matt. & Springs	1906	100,000	350	100,000	11	5	5	8	8	26	12	26	2.50	5.00	2.00	St'm	79
Butte....	Hat Boxes	1899	6,000	75	23,400	1	2	2	9	9	26	12	26	2.00	5.00	0	Elec	5
Butte....	Macaroni	1898	50,000	2,000 lbs.	600,000 lbs.	15	0	4	9	8	26	12	26	2.00	3.50	0	St'm	10
Butte....	Sandstone Bldg.	1897	40,000	\$150	\$37,500	18	7	0	9	0	26	10	0	2.00	3.50	0	St'm	10
Fromberg...	Vinegar	1913	10,000	2½ bbls.	800 bbls.	0	1	0	10	0	26	1	0	2.00	0	0	Gas.	6
Fromberg...	Culverts	1910	15,000	60 ft.	9,000 ft.	2	4	0	9	0	26	6	0	4.00	0	0	Gas.	4
Great Falls.	Plast. & Gypsm.	1908	16,050	200 tons	50,000 tons	18	20	0	8	0	26	12	0	3.50	3.00	0	Elec	200
Great Falls.	Doors, Furnit're	1899	15,000	\$135	\$49,275	11	0	0	8	0	26	12	0	4.50	0	0	Elec	15
Great Falls.	Artificial Ice	1914	50,000	15 tons	5,000 ton	3	2	0	8	0	30	4	0	13.50	6.00	0	St'm	100
Hamilton...	Box Shooks	1894	10,000	35,000 ft.	400,000 ft.	7	23	0	9	0	26	4	0	3.96	2.10	0	St'm	100
Helena....	Dried Fruits	1912	8,200	8,000 lbs.	500,000 lbs.	4	2	15	8	8	30	3	30	3.50	2.50	1.35	St'm	35
Helena....	Pancake Flour	1893	0	40 cases fir.	12,000 cse fir	0	2	0	8	0	26	12	0	0	0	0	St'm	24
Helena....	Tents & Awns.	1898	1,000	1 tent	300 tents	0	0	0	0	0	0	0	0	0	0	0	Elec	2
Helena....	Harness	1903	5,000	2 sets	600 sets	2	0	0	0	0	26	12	0	3.50	3.00	0	Elec	2
Helena....	Lime	1878	20,000	160 bbls.	40,000 bbls.	4	5	0	10	0	26	0	0	3.50	0	0	H'd	...
Helena....	Saddles, Tents	1899	1,000	\$ 15	4,500	4	0	1	8	8	26	12	26	1.75	2.00	2.50	St'm	65
Helena....	Biscuit	1912	200,000	\$ 800	250,000	22	16	35	9	9	26	12	26	4.00	4.00	0	St'm	...
Helena....	Rubber Stamps	1905	3,000	\$ 12	\$ 3,600	10	0	2	0	8	0	12	0	0	0	0	H'd	...
Helena....	Soap, Candles	1888	78,000	135,000 lb.	40,500,000 lbs.	20	0	2	10	8½	12	0	30	3.10	3.10	1.60	St'm	120
Helena....	Rugs	1912	3,000	40 yds.	10,000 yds.	7	2	1	10	7	26	12	0	2.75	0	1.25	Elec	5
Huntley....	Pickles	1908	5,000	30 bbls.	1,000 bbls.	2	0	0	10	0	26	12	0	3.50	4.25	0	St'm	30
Huntley....	Lime Rock	1909	25,000	245 tons	90,000 tons	6	12	10	0	8	26	12	0	3.50	3.25	0	St'm	40
Logan....	Concrete Prod.	1912	30,000	500 blocks	1,500,000 blks.	8	0	0	8	0	26	12	0	5.00	0	0	St'm	135
Manchester.	Whiskey	1907	0	450 gallons	10,000 gal.	5	0	0	8	0	26	8	0	3.35	5.00	0	St'm	2
Miles City...	Saddles, Harn's	1909	40,000	1 set harn's	250 sets harn's	11	0	0	9	0	26	12	0	5.50	0	0	Elec	5
Miles City...	Saddles, Harn's	1893	65,000	2 harness	400 harness	15	0	0	9	0	26	12	0	3.00	0	0	Elec	5
Missoula...	Culverts	1899	10,000	\$200	\$60,000	0	2	0	9	0	26	12	0	2.80	2.80	1.25	Elec	1200
Three Forks	Cement	1910	240,000	1,500 bbls.	450,000 bbls.	54	127	4	8	8	30	12	30	4.45	4.45	0	Elec	1200
Total			\$4,650,850			325	674	85	8%	8%	26%	10	25%	\$2.95	\$4.38	\$1.93		7509

†Operated by Owner. \*\*Piece Work. \*Wages per ton.

---

---

# THE FUR INDUSTRY

---

---



## The Fur Industry

The fur industry of Montana has an interesting and attractive history. A generation ago, Montana was still thought to be a strange, mysterious region out west, peopled principally by Indians, over-run with fur-bearing animals, with scattered bands of cowboys to lend a picturesque setting to an imaginary picture. Some of these impressions still exist among many adult persons, who retain their school day impressions of the characteristics of this state. These impressions are rapidly disappearing, however, and the true condition of the country's resources is becoming much better known and understood.

While the Lewis & Clark expedition gave to the world the first authentic information of the far northwestern country, it was the daring trader and the solitary trapper who penetrated the remote recesses of the mountain country and explored every river and stream to its very source.

For over 100 years, wild animals have been hunted in this region without any interruption or scarcely any protection from federal or state authorities, except with relation to a few animals, and this has only been accomplished during comparatively the last few years. One would naturally expect from such adverse conditions that the animal kingdom of the state of Montana had long ago become extinct. It is true that the American bison or buffalo which once roamed the plains in countless thousands, can no more be seen in their native state. The few that are left are confined in the Flathead region, and in corrals provided in the Yellowstone National Park.

Although in rapidly diminishing numbers every other species of fur-bearing animals are still to be seen as the hunter or the trapper found them a century or more ago. The rapid decrease of fur-bearing animals, however, is a matter of regret and great concern to many people, and the prediction is made that ultimate extinction is but a matter of time and consequence. Notwithstanding all that has been said and done, the fur business is still an important industry in the state.

During the past year the Department of Labor and Industry has endeavored to collect information and data of a character sufficiently reliable to form a basis for an estimate of the raw furs annually shipped out of this state.

Many of the local fur dealers throughout Montana have been interviewed, and the confidence of several people who trap for a livelihood in the winter months, has been solicited. Appeals have likewise been sent to the principal fur dealers of the United States. It was found to be extremely difficult to get accurate information as to the Montana output for the reason that the shipment of Montana furs is so widely distributed among some twenty to twenty-five raw fur houses scattered all over the United States. St. Louis is still one of the world's great fur markets. In the fall of 1913, the United States government, through Secretary of Commerce Redfield, made a decision to change the sale of the government catch of seal skins, foxes and

other Alaskan furs from London to St. Louis. It is estimated that 65 per cent of the furs caught in North America go to the St. Louis market, but it is not thought that this ratio will hold good with reference to the Montana output.

Predatory animals probably furnish one-half the entire year's shipment from this state.

As will be seen from the figures compiled and published in the following page, the state paid bounty claims on 32,626 coyotes, 43 mountain lions, 888 wolves and 658 wolf pups during the year 1913. In addition to these, there are many lynx, wildcat, fox and bear killed annually, for which the state does not pay a bounty. In dollars and cents, probably \$100,000 is paid annually for the pelts of predatory animals alone. These figures are probably conservative, and when it is taken into consideration that lynx are worth eighteen to thirty-five dollars for each pelt, while valuable silver fox skins are frequently seen in shipments, and a black fox now and then worth many hundreds of dollars is occasionally trapped.

The collection of furs from Montana is made of coyotes, lynx, cats, mink, marten, white weasel, bear, muskrat, skunk, badger, red cross, kit, silver and black fox, timber wolf, otter, lynx and fisher. The principal furs shipped, however, are coyote, muskrat, lynx cat, white weasel, mink and marten. These articles are shipped in large quantities.

It was ascertained from correspondence with eastern fur houses that one firm alone received approximately \$42,000 worth of furs from this state during the fur season of 1913-1914. Another house received \$22,500 worth, covering the same period of time. While the records of some of the important fur houses give the number of shipments received, they do not show the principal kind of fur or its value, and it was found quite impossible to tell whether in each and every case the entire shipment originated in Montana. It would appear, however, from information given us that it is safe to assume that there are other fur houses of equal importance to those mentioned, which receive a corresponding quantity and value of shipments from Montana trappers during the past season. In view of the fact that shipments of furs from the state are distributed among so many different raw fur houses, it would appear that the raw fur business is quite an important industry for this state. From the best of information obtainable, this Department believes that \$200,000 would be a safe and conservative estimate of the annual output of Montana raw furs. The high price of muskrat four years ago caused many trappers to operate in the state, and two years ago, owing to the exceptional price paid for weasel skins, many of these valuable little animals were caught and destroyed. As a whole, the fur bearing animals of the state are rapidly decreasing, but regardless of the fact that they are being persistently hunted and trapped, there are considerable numbers of all species still left.

On the following page will be found a table containing the number of wild animals killed in each county, with the amount of bounty paid by the state for 1910 to 1913, inclusive.

TABLE NO. 37—BOUNTIES PAID ON EACH WILD ANIMAL BY THE STATE FROM 1910 TO 1913 INCLUSIVE.

COUNTY	1910					1911					1912					1913				
	Wolves, \$10	Wolf Pups, \$3	Coyotes, \$3	Mountain Lion, \$10	Amount paid for Bounties claims, 1910	Wolves, \$15	Wolf Pups, \$3	Coyotes, \$3	Mountain Lion, \$10	Amount paid for Bounties claims, 1911	Wolves, \$15	Wolf Pups, \$3	Coyotes, \$3	Mountain Lion, \$10	Amount paid for Bounties Claims, 1912	Wolves, \$15	Wolf Pups, \$3	Coyotes, \$3	Mountain Lion, \$10	Amount paid for Bounties claims, 1913
Beaverhead	39	12	1,996	2	\$ 6,435	35	4	2,141	2	\$ 6,805	33	.....	2,468	2	\$ 7,910	36	.....	1,837	.....	\$ 6,051
Big Horn	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,111
Blaine	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,214
Broadwater	9	2	314	.....	1,038	12	.....	282	2	1,006	13	27	1,105	.....	3,591	37	96	1,659	.....	2,443
Carbon	.....	.....	.....	.....	1,273	13	3	592	.....	1,906	10	8	61	385	2	1,276	14	.....	.....	1,008
Cascade	65	22	414	3	1,998	30	28	734	.....	686	41	63	1,002	2	2,082	18	.....	587	.....	3,008
Chouteau	43	65	2,193	1	7,215	110	200	4,571	.....	15,413	54	86	2,009	.....	7,096	33	32	794	2	3,008
Custer	79	102	2,129	.....	7,479	215	282	5,220	.....	19,928	137	232	4,744	.....	16,939	108	237	1,427	.....	4,851
Dawson	93	148	1,469	.....	5,801	90	85	1,445	.....	5,891	106	95	2,101	1	8,188	60	31	1,856	.....	13,286
Deer Lodge	1	62	.....	.....	195	1	.....	.....	.....	7,331	6	.....	1,777	.....	3,321	8	.....	.....	.....	6,571
Fergus	51	53	1,262	11	4,567	83	119	1,771	2	7,101	44	42	1,932	2	6,545	51	33	1,891	.....	6,558
Flathead	8	.....	342	36	1,467	39	.....	267	58	1,850	98	.....	555	33	3,466	46	.....	501	.....	2,273
Gallatin	5	13	430	3	1,408	16	15	652	.....	2,170	15	6	739	.....	2,521	6	.....	301	.....	2,803
Granite	9	.....	264	.....	882	3	.....	314	2	987	.....	.....	308	1	934	3	.....	304	.....	1,967
Hill	.....	.....	249	.....	747	.....	.....	.....	.....	.....	6	1	640	.....	2,013	16	31	1,726	.....	5,511
Jefferson	.....	.....	.....	.....	.....	2	.....	277	.....	861	.....	.....	302	.....	906	.....	.....	214	.....	632
Lewis and Clark	8	724	2	2,260	2	28	11	1,082	.....	3,649	36	10	1,093	.....	3,850	22	.....	839	.....	2,898
Lincoln	41	4	44	12	663	45	.....	15	13	696	117	.....	94	6	2,037	112	.....	8	14	1,844
Madison	.....	689	.....	.....	2,127	12	.....	660	1	2,451	22	4	612	1	2,190	19	.....	599	.....	1,942
Mearher	25	12	602	2	2,103	33	5	900	2	3,125	22	4	893	1	3,031	40	.....	591	6	2,433
Missoula	1	330	3	1,029	3	1	.....	426	3	1,338	.....	.....	380	1	1,150	4	5	411	3	1,337
Musselshell	.....	.....	.....	.....	1,299	68	53	1,247	.....	1,209	128	5	1,526	3	4,920	18	41	519	.....	1,950
Park	15	.....	499	.....	1,646	34	9	961	.....	3,349	11	.....	638	12	6,544	49	.....	1,019	.....	3,792
Powell	2	459	.....	.....	1,408	34	2	384	12	1,303	11	.....	387	3	2,199	3	.....	587	.....	1,806
Ravalli	.....	283	.....	.....	859	7	.....	292	2	8,223	78	179	1,821	.....	1,191	2	.....	310	.....	960
Rosebud	83	48	1,460	.....	5,365	106	175	2,295	.....	451	1	.....	108	1	7,142	68	31	1,543	.....	5,742
Sanders	1	125	1	395	2	.....	.....	123	5	.....	.....	.....	.....	.....	350	1	.....	123	.....	384
Sheridan	.....	.....	.....	.....	1,044	4	.....	246	.....	800	3	.....	289	.....	910	.....	8	196	.....	612
Silver Bow	10	5	310	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	320	.....	.....	960
Stillwater	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	130	.....	.....	390
Sweet Grass	16	6	355	1	1,253	27	18	516	.....	1,962	21	6	600	1	2,143	6	.....	495	.....	1,573
Teton	4	10	1,608	.....	4,895	4	18	2,419	.....	7,365	6	23	3,485	.....	8,124	5	10	2,278	.....	6,939
Valley	27	26	1,621	.....	5,209	62	132	3,307	.....	11,398	55	97	3,485	.....	11,719	49	57	3,036	.....	10,015
Yellowstone	27	21	1,166	.....	3,838	44	29	2,316	.....	7,626	45	45	1,841	.....	6,333	22	4	1,024	.....	3,414
Total.....	679	554	21,789	77	\$74,589	1,081	1,086	34,587	104	\$122,309	1,134	990	36,674	72	\$131,472	888	658	32,626	43	\$113,642



---

---

**PROSPECTIVE MONTANA  
INDUSTRIES**

---

---



# Prospective Montana Industries

## Pulp and Paper Mills.

This Department in recent months has given considerable attention to investigating the feasibility and practicability of the establishment of pulp and paper mills in Montana. In view of such favorable information acquired, pertaining to this question, it would appear strange that this important industry has not been exploited heretofore in the western part of the state.

Investigations have shown that the matter of establishing pulp and paper mills in Montana is going to be of great import within the next few years. Unquestionably a pulp mill established in western Montana under judicious conditions, taking into consideration location, transportation facilities, opportunities for obtaining raw material, cheap power, modern machinery and judicious business management, would prove a financial success. This matter has been given considerable attention by the officials of the National Forestry service having headquarters in Missoula.

The Montana field has been carefully investigated during recent months by capitalists interested in the manufacture of paper in the eastern states.

It has been considered by the engineers employed by these persons that there is available in northwestern Montana splendid power facilities, an unlimited supply of suitable timber and all of the features that go to make up an attractive location for pulp and paper mills.

During the summer of 1913, at the solicitation of men representing large capital from Ottawa, Ontario and Appleton, Wisconsin, careful investigation was made into the feasibility of the establishment of a pulp and paper mill of large proportions at the mouth of the Yakt river at its confluence with the Kootenai river in Lincoln county. So impressed were the engineers employed to investigate this project, with the attractiveness of the proposition, that application was made on behalf of these people to the Forestry service for a tract of timber estimated to contain 700,000,000 feet, lying along the Yakt river and in the great basin north of Sylvanite. The Forestry officials cruised the timber carefully. The engineers reported that the timber was particularly well suited to the manufacture of pulp and paper products. The timber was advertised for sale, and it was the express intention of the Ottawa promoters to bid for the purchase of the entire tract. A pulp mill was to be established at the mouth of the Yakt river. A large saw mill was to be established farther up the stream for the manufacture of lumber out of timber more suitable for merchantable lumber than for pulp. At the time set for the receiving of bids, the gentleman who had made application for the sale of the timber informed the Forestry officials that, owing to the disturbed condition of the financial world, it was found impracticable to obtain immediately the capital necessary to successfully establish the enterprise. Therefore, no bids were received.

Meantime, however, the promoters of this enterprise had obtained a lease extending for a period of fifty years, from the government, on the water power in the Yakt river. They are now paying an annual rental for this power, and their lease, the Department is informed, still holds good. Recently, the promoters of the enterprise informed this office that it was their intention to go ahead with the establishment of the pulp mill just as soon as financial arrangements could be completed. It is their declared intention to invest in this enterprise something in the neighborhood of one and one-half million dollars. Whether or not this particular project will ultimately be carried out, this office, of course, is not in a position to state. The Department is assured by the Forestry officials at Missoula that they have every reason to believe that the matter will eventually be successfully closed up.

For the information of the public it may be stated that the hitch in this particular project seems to have occurred by reason of the fact that the Forestry officials are anxious to avoid the semblance of lending the name of the department to anything that might look like the scheme of a promoter. Therefore, they required of the people behind this project that the company to be organized should have at least \$200,000 in cash; that a majority of those in the company should be actually interested financially in its affairs in a substantial manner. The men promoting the project were offering their contract with the U. S. Forestry service as security for their bonds which they already have issued. They also were offering as evidence of their good faith, and in assurance of the ultimate success of the project, their lease upon the power sites. This was not deemed sufficient guarantee of the financial success of the project by the officials of the Forestry service.

It is admitted that there is a constant supply of timber suitable for the making of pulp, sufficient to run indefinitely a mill of the proportions proposed. It is to be remarked that any one establishing an enterprise of this character in that region of the state would be vastly benefited by reason of the elimination of a large annual tax in the nature of a carrying charge on the timber. It will be understood that the government sells the standing timber under contract extending over a long period of years. The government assumes the cost of caring for the timber and protecting it from fire and waste until it has been used and paid for by the purchaser. The Forestry officials estimate this charge to amount to approximately 55 cents per M annually. Under a contract of this character, the timber is only paid for as it is used. Therefore, there are no taxes. It will be seen at once that this is a distinct advantage which the western mill operator will have over the man who is forced to invest his money in large tracts of standing timber in eastern states, and pay annually the carrying charges incident to protection and taxation.

The greatly increased demand for pulp products, and the enormous increase in the consumption of paper in recent years, should be given consideration when a project of this character is in mind. It is

our information that there are only four or five paper and pulp mills operating in the vast territory west of a line drawn from the western centre of Minnesota to Orange, Texas. One of these mills was established at Spokane a year or two ago, and we understand it is meeting with conspicuous success. Three or four other mills of a like character are in successful operation on the Pacific coast.

Northwestern Montana has an abundance of good spruce, suitable for the manufacture of pulp. If a paper mill were to be established and conducted along the right lines, it could undoubtedly be made to pay in that territory. A large field for the sale of paper is opening up in the Canadian Northwest. Except in the extreme East, there is hardly a paper mill running today with the prospect of any continued duration of operation. With freight rates for paper to this northwestern field, of from twelve to twenty dollars a ton from Chicago, it is only a matter of a short time when paper mills must be established in the northwest. The removal of the tariff on pulp and paper, and the consequent readjustment of the paper mill business in this country, have to a large extent broken the power of the alleged paper mill combine. Heretofore, it has been the policy of the paper manufacturers in the eastern centers of the country to hamper and discourage, as far as possible, the establishment of pulp and paper mills west of the Mississippi river. They have been accustomed to calling upon the West to support their eastern mills, where their capital was invested. It is but the plain truth to say that many of these eastern mills are now obsolete, and to a large extent the machinery is antiquated. Owing to the vast improvements in modern machinery designated for the making of pulp and paper, the mill equipped with the latest appliances, and surrounded by an abundance of cheap and suitable raw material for the manufacture of pulp, would be a dangerous competitor to the ancient manufacturing concerns of the eastern centres. Many of the eastern mills have exhausted their supply of wood, and the condition of the entire pulp industry of the country now calls for a long period of re-adjustment and re-organization. These conditions give the West its opportunity in this matter.

It is the firm conviction of the officers of this Department, from the investigations we have been able to make, and from all the data available on this subject, that the time is near at hand when the manufacture of pulp and paper on a large scale will characterize the industrial life of northwestern Montana.

### Oil and Gas Wells.

That Montana will one day be a producer of large quantities of petroleum is the belief and opinion of many eminent geologists who have made a thorough investigation of the possibilities of this region, and extensive explorations in a number of localities where seepage of crude oil and favorable surface indications have been discovered. That natural mineral gas, which is invariably associated with oil to a greater or less degree, will be found in commercial quantities is likewise their

opinion, and has resulted in considerable development work being done, especially the past season, in different counties throughout the state.

Evidences of oil and gas were discovered in Carbon and adjoining counties several years ago, and many test wells have been drilled, particularly in this locality of the state during the past five or six years, with a view of developing both oil and gas wells. The prospective fields of Carbon county are thought by many to be extensions of the Wyoming oil fields, the topography and conditions under which oil is found in that state being similar to the region in Carbon county. While some oil and gas have been discovered in Carbon, Park, Musselshell, Cascade and Rosebud counties, and many encouraging and promising indications found, the development work has been carried on with indifferent success and is not fully up to expectations.

The past season has witnessed much activity in the sinking of wells, and filings have been made on oil claims, especially in localities where surface indications are to be seen. Early last spring an option or lease was taken on 15,000 acres of state land in Musselshell, Carbon, Cascade and adjoining counties by development companies, and prospect work continues with renewed activity and zeal. The development work going on about the state is being watched with interest, not only on account of the activity displayed, but because of the faith and optimism of those who are interested in the proposition. Reports of both oil and gas finds have been numerous and frequent the past season, aside from the Havre gas wells, but it is doubtful if either has been discovered as yet in profitable and paying quantities. There seems to be no doubt that both oil and gas are underlying many counties of the state, the only question being to find them in commercial and paying quantities.

In Havre natural gas has been developed in what is believed to be commercial quantities, while extensive drilling for oil is now going forward, with every indication of success in the Sweetgrass hills of northern Toole county and in the immediate vicinity of Great Falls and Billings.

### Utilizing Potato Products.

The establishment of a potato flake, starch and glucose industry in Montana has received some attention through agitation during the biennial period covered by this report. No definite inquiry, however, seems to have been made as to the cost of production of starch and glucose from potatoes, although it is said that chemical experts have tested the Montana-grown potato and that its adaptability to this line of manufacture is assured. Whether Montana will have a new industry of this character in the near future is problematical, but in view of the fact that there are so many things that make the state an ideal place for the development of such an industry, it is not unlikely that the making of starch and glucose from potatoes will be undertaken at some point in the state in the next few years.

The percentage of production per acre of potatoes in Montana is double that of many states, and only a few states have a larger aver-

age yield per acre. The latest government report for the year 1913 showed a yield of 5,040,000 bushels from Montana land, worth approximately \$3,377,000. No official figures are available for the cost of production per acre, but it is safe to assume that they can be grown for \$25 to \$30 per acre, while in other states it is twice and in some instances three times that amount.

The establishment of a starch and glucose industry in Montana would mean the assurance of a market for every potato the farmer could raise. Even the culls could be used.

The potato flake industry originated a few years ago in Germany, being the result of scientific efforts to guard against a potato famine and to preserve the surplus crops and provide a better and more stable market for the farmer's output. This industry has grown to be an important one in Germany, over 400 factories having been built and in operation before the war throughout the German Empire. The United States government has taken some interest in the proposition, and a Butte corporation was formed about a year ago to build a factory at Missoula and utilize the Bitter Root crop of potatoes. For some reason, however, the plant has not been built. Early last spring the Kalispell chamber of commerce sent a representative, Mr. Chris Best, to Germany to study this industry and report as to the feasibility of building a plant in Flathead county. The report submitted is quite voluminous and contains some interesting information concerning this industry. After describing his visit to a number of the German plants, Mr. Best says:

"I found that there is but one principle involved in all of the systems of making flakes and that is to heat the potatoes slowly in order to get the fruit water out, then boil them under pressure until the starch cells are thoroughly opened, afterward forcing the cooked potatoes against hot rollers revolving slowly, whereby the amount of moisture is reduced to about 10 or 12 per cent. Before the rollers make a complete turn, knives held against them cut the resulting flakes from the rollers into a conveyor underneath which carries them to their desired destination.

"With one exception all of the systems use steam to heat the rollers and the resulting condensed water runs back to the boilers automatically. Edmund Kletzsch, Coswig, Saxony, near Dresden, pumps heated oil into the rollers and uses this oil over and over again by heating the returning oil in a set of pipes placed in an oven, the pump causing a steady circulation of this heated oil from the rollers to the little oven. This system is the most economical, but has not been perfected far enough to make it safe from fire, several of their plants having been destroyed in this way through leaks in the oil-pipe connections.

"While I was studying the comparative value of the different systems I discovered difficulties regarding the percentage of starch and I found that potatoes containing less than 16 per cent of starch would not flake, but dropped off the rollers in small pieces. This was quite a disappointment to me, knowing that our potatoes fall below that

percentage in starch, and a factory for Kalispell to manufacture flakes for human consumption was therefore out of the question. However, this does not mean that a small flake mill erected and run by a few neighboring farmers would not pay. I believe such a plant could be run successfully, the investment not to exceed \$5,000.

"Our farmers look for a large yield of potatoes in weight without paying any attention to the percentage of water they contain. This could be remedied by planting a factory potato instead of the one now being grown in Montana. According to the statement of the Secretary of Agriculture, the percentage of starch in our potatoes does not average more than 12 per cent, while in Germany the average is almost 20 per cent, some going as high as 24 and 26 per cent. It will now be to the farmer's advantage to raise the percentage of starch to at least .16 per cent as soon as this can possibly be done, through the selection of the best seed from year to year. By the time this is done and having made a success of the first co-operative plant, the idea will be copied all over the valley and elsewhere and chances are that conditions will then be ripe for a large central plant to manufacture flakes for the market.

"Besides the roller system which converts potatoes into flakes, brewers' yeast and animal blood into an excellent stock food, and flakes all kinds of grain, there is a large number of drum-dryers (all-dryers), so called because they are used for so many purposes, such as drying chipped potatoes, beets of all kinds and their leaves, potato-kraut, beet-pulp, brewers' grain, et cetera, the object being to get the percentage of water to a minimum in order to keep the article from spoiling.

"Denatured alcohol can now be made from potatoes, since the act governing the manufacture and sale of this alcohol has been amended. However, I would not advise the building of a distillery in Kalispell for this purpose, as it is yet too expensive to be used as fuel or motive power, and the market too far away.

"While at the Institute of Fermentology in Berlin I inquired about the Dr. Classen method of getting alcohol from sawdust and other wood fibre. I was told that the process is out of the experimental stage, and a practical success. They furthermore told me that quite a large distillery is being erected in Seattle, Washington, and they are watching the result with keen interest. The process is very simple and consists essentially in boiling wood fibre in a closed vessel under pressure, adding sulphuric acid to convert the cellulose into a sugar called sacchulose. After neutralizing the acid with chalk the syrup is filtered, then fermented, and the alcohol distilled. This process is exactly the same as the one used in the manufacture of grape sugar from potato starch, only that the sugar resulting in the latter case is dextrose instead of sacchulose. Both sugars are easily fermentable and alcohol can easily be made from either of them.

"The Berlin people claim that alcohol from wood fibre can be produced for less than 10 cents per gallon. Should this prove true, quite an industry could be started here, as at such a low price, alcohol

could easily compete with gasoline as a motive power. The only drawback in using alcohol as a motive power is the fact that on account of the cylinder compression of the motors, alcohol cannot economically be used with an ordinary gasoline motor; but especially constructed motors will have to be designed, with stronger and heavier castings."

### Canning Factories.

It would appear that there is an excellent opportunity for the erection of canning factories in this state. Figures covering the annual importation of canned vegetables into Montana were presented by H. M. Sloan, of Florence, Montana, for the fruit and vegetable growers of Montana, Washington, Idaho and Oregon, who met in Spokane last summer. During the year 1913, according to figures compiled by Mr. Sloan, there were imported into this state 125,000 cases of tomatoes, 75,000 cases of corn, 60,000 cases of peas and 25,000 cases of beans, or a total of 285,000 cases of canned vegetables, in addition to 60,000 cases of canned fruit, of which 70 per cent was peaches and pears. This state also imported 40 cars of apple cider vinegar and 20 carloads of sweet cider. In view of these figures it is puzzling to understand why Montana has no canning factory, when fruits and vegetables of nearly every kind can be grown here in abundance with reasonable certainty and a fair average of success.

With a moderately small investment for a canning outfit and equipment, any farmer can increase his income from his farm crop several hundred dollars a year. In addition to putting up his own crop, he can buy from neighbors and make a good income. In both the eastern and western parts of the state where such crops as apples and vegetables are grown, a small canning factory should be most profitable. An outfit costing between \$600 and \$700 is large enough to put up from 3,000 to 7,000 cans per day, and much of this output can be sold without going outside of the county for a market. A saving may be effected in the cost of canning by buying the cans, labels and other supplies in large quantities, and this is the only big expense to the canning business. But this, however, soon comes back if the farmer has the crop to fill his cans. The outfit is simple and inexpensive, and a carload of canned goods is as easily sold as a carload of grain.



## Contents

---

---

# MONTANA MARKETS

---

---



## Home Markets

The question of home markets is always an important one to any community, town, county, territory or state. It is an axiom in trade that "there is no market like the home market," and in this respect Montana is singularly blessed, for there is probably no place in the world which offers such exceptional advantages in the way of markets for all kinds of home products. The consuming capacity of the mining metropolis of Butte alone for agricultural products would appear to be unusually large. The mining camps elsewhere with which the whole state is dotted, the saw mills and logging camps scattered throughout the western part of the state, the numerous working mines and smelters with their large staff of employes, the railroads operating and under construction, are all liberal patrons, especially of the farm, at prices unaffected by competition. In nearly every instance, home products are given preference over imported articles, and rarely, if ever, do shipments from abroad disturb the local trade. The established cities and towns, many of them located in mining regions, unproductive, the new towns which are constantly springing up, with the building of new branch lines of railroads, the opening of new mines, and the establishment of new industries, afford splendid markets to the farmer, who deals directly with the consumer or retailer for cash—the trading system in vogue in older settled communities being practically unknown. Vegetables, especially the early varieties, can always be disposed of at a handsome profit, locally, while fruits raised so abundantly in the western part of the state, find unlimited market in the mining towns of the state and east of the Rocky Mountains. Eggs, milk, butter and cream are always at a premium—the local product falling far short of supplying the demand. In many towns, fresh milk is hard to get, and it is almost unknown in some of the mining, lumber and railway construction camps, where the imported condensed substitute is used.

During the latter part of the year 1913, the Department made a thorough and conservative investigation to determine the amount of importation of meats, poultry and dairy products into the state for a period of 12 months, and the result of this investigation is given below. From one of the largest packing houses in the United States the Department received an estimated average consumption of meats per person per year. These figures are undoubtedly too small, for it is believed Montana's consumption of meat is above the average for the country. These figures which are herewith given are sufficiently accurate, however, to be taken as a basis for the total consumption in the state.

**AVERAGE ANNUAL CONSUMPTION OF MEATS IN THE UNITED STATES,  
PER CAPITA.**

	No. lbs.	Value Wholesale
Average consumption each person of beef.....	80.34	\$16.87
Average consumption each person of mutton.....	6.71	1.41
Average consumption each person of veal .....	7.54	1.58
Average consumption each person of pork.....	77.67	16.31
Average annual consumption for each person.....	172.26	36.17
Average consumption for each person per day .....	.4701	.09 9-10

**TOTAL ANNUAL CONSUMPTION OF MEATS IN MONTANA.**

	No. lbs.	Value Wholesale
Annual consumption in the state of beef.....	40,770,000	\$ 8,561,700
Annual consumption in the state of mutton .....	3,335,000	700,350
Annual consumption in the state of veal .....	3,770,000	791,700
Annual consumption in the state of pork .....	38,835,000	8,155,350
Total consumption of meats, based on 500,000 people	86,710,000	\$18,209,100
Estimated amount of meat annually shipped to state	12,000,000	2,520,000
Total amount meats annually slaughtered in Montana	74,710,000	\$15,689,100

The total importations of meat, dairy and poultry products into the state was found to be as follows. The figures will doubtless hold good for the year 1914.

**MEAT PRODUCTS**

Beef, mutton, pork, including hams, bacon and lard....	\$2,520,000	
<b>POULTRY PRODUCTS</b>		
Live and dressed poultry.....	1,500,000	
Eggs, 150,000 cases, 30 doz. each, @ 30c per doz.....	1,350,000	
Total .....	\$2,850,000	
<b>DAIRY PRODUCTS</b>		
Butter, 3,500,000 lbs. @ 31c per lb.....	\$1,085,000	
Cheese, 4,000,000 lbs. @ 20c per lb.....	800,000	
Condensed milk and cream, 300 cars @ \$2,100 per car..	630,000	
Total .....	\$2,515,000	
Total ofr meat, dairy and poultry products.....		\$7,885,000

While on the subject of home markets, attention may be called to the excellent market afforded by the Yellowstone National Park, located on the southern and central border, and so often referred to as the nation's playground. Here is located one of the government forts, where are stationed several troops of cavalry the entire year, creating an excellent demand for fodder and other products of the farm and garden in the several counties adjacent and tributary. Between twenty and thirty thousand tourists visit this park annually, necessitating the employing of a large army of civilians and employes, besides the necessary equipment, including hundreds of horses for the transportation

and attention of tourists, during their brief travel and sojourn in this natural wonderland. As the tourist travel increases each year, the consuming capacity of the park grows larger, creating an unparalleled demand for the products of the ranch, dairy and orchards of the state.

With the creating of the Glacier National Park in the northern part of the state, another similar market is afforded for large quantities of the produce, which can be grown and won so easily from the fertile hillsides and valleys of this state.

Everywhere in Montana is opportunity for manufacturing and industrial expansion. The available water power in Montana is probably greater than that of any other state, excepting New York. With the advantage of cheap water power, innumerable manufacturing plants are bound to locate here in the very near future. The market is here for the factory as well as for the farm. For both, a home market is at their very door, and will be for many years to come.

There is practically no risk in coming to Montana to engage in either manufacturing or agricultural pursuits; either is a safe and sane investment, alike alluring, incapable of failure or disappointment.

To the person possessed of sufficient capital to start on a comfortable scale, he should become independent and well to do in a few years. Even with limited means, there are no difficulties in the way which may not be surmounted by industry and perseverance. It is earnestly hoped and desired that in the near future, the people of Montana will pay particular attention to the erection and establishment of many small manufacturing industries, which can manufacture and place on the market in competition with all comers, articles of consumption made from the products of Montana's mines, farms and forests found and grown in such abundance here. There are so many industries which would thrive and flourish on the home consumption alone—every dollar of their output consumed and sold in the home market at a handsome figure and comfortable margin of profit. As a further consequence, local capital would be stimulated; thousands of dollars would be paid out for raw material; labor would find remunerative employment, and the whole state would be made richer and happier by keeping at home thousands of dollars sent out of the state annually for goods and material that can be made better and cheaper here at home.

Let us hope that the capitalist and manufacturer may become as interested and enamored of Montana as the home builder, the agriculturist and the farmer. Both are needed in the future development of the great natural resources in which the Treasure State abounds.



---

---

**COMPOSITION AND  
CHARACTERISTICS OF MONTANA  
POPULATION**

---

---



## Composition and Characteristics of Montana Population

This chapter is devoted to five tables reproduced from the Thirteenth census of the United States. For the most part, these tables deal with the composition and characteristics of the population of this state, although a careful perusal of each will disclose other data and information of importance and interest to the general public. All of the information as set forth in this chapter was compiled from the United States census taken in 1910. Notwithstanding that four years have elapsed since that time, the statistics herein given are the latest compilation of this kind and character, and will be for several years to come. Unless provisions are made for taking a state census next year, no other figures will be available until the next United States census in 1920.

Many inquiries have been received from time to time by this Department for information herein contained. Frequent requests have been received for the Indian, Chinese and Japanese population in Montana, and it is gratifying to know that the Chinese and Japanese population of the state shows a marked decrease during the ten years' period from 1900 to 1910. On the whole, it is pleasing to learn that Montana is essentially a white man's country, although a large percentage of the population are of foreign birth or foreign parentage. While the negro population shows a larger increase during the last census period than formerly, there were only 311 more colored people in the state in 1910 than in 1900. It is safe to assume from these figures that the negro immigration has not yet reached alarming proportions.

When the census of 1910 was taken, Montana contained 376,053 people. It is estimated that in the last four years this has increased to nearly 600,000. At this rate of increase, in another year the population will have almost doubled. Few states can show as rapid an increase in the same proportionate time. While the composition of the increase in population during the past four years is somewhat varied from the last decade, it is doubtful if there is little relative difference, unless account is taken of the Italians and the influx of immigrants from the southern and Balkan states of Europe. This class of people in Montana will probably show an increase. With this difference, the composition and characteristics of the new population is approximately the same.

Table No. 38 deals with the color, nativity and parentage of the people of the state, and the urban and rural population of Montana.

Of the total population of Montana, 162,127 or 43.1 per cent are native whites of native parentage; 106,809 or 28.4 per cent are native whites of foreign or mixed parentage; 91,644 or 24.4 per cent are foreign born whites; 10,745 or 2.9 per cent are Indians; 2,870 or 0.7 per cent are Chinese and Japanese; and 1,834 or 0.5 per cent are negroes. In 1900 the percentage of native whites of native parentage was 38.2

Table No. 39 and 40 have to do with the native population distinguished as born in the state or outside of the state and division of birth.

Of the total native population, that is, the population born in the United States, 35.3 per cent were born in Montana and 64.7 per cent outside the state; of the native white population 66.6 per cent were born outside the state; of the native Indians, 13.5 per cent, and of the native negroes, 80.9 per cent. Persons born outside the state constitute approximately the same proportion of the native population in urban as in rural communities.

Table No. 41 covers the white nationalities, whether foreign born or of foreign parentage.

Of the foreign born white population of Montana, persons born in Canada represent 14.7 per cent; Ireland 10.3; England 9.8; Germany 9.5; Austria 9.1; Norway 7.8; Italy 7.2; Sweden 7; Finland 4.5; Scotland 3.7; all other countries 16.4. Of the total white stock of foreign origin, which includes persons born abroad and also natives having one or both parents born abroad, Canada contributed 14.9 per cent; Ireland 14.3; Germany 13.4; England 10.4; Norway 7; Austria 6.5; Sweden 5.9; Italy 4; Scotland 3.5; Finland 3.3; Denmark 2.

Table No. 42 gives the Indian, Chinese and Japanese population in Montana by counties in 1910.

TABLE NO. 38— COLOR, NATIVITY AND PARENTAGE.

Class of Population. The State.	NUMBER			PER CT. OF TOTAL		
	1910	1900	1890	1910	1900	1890
Total population .....	376,053	243,329	142,924	100.0	100.0	100.0
White .....	360,580	226,283	127,690	95.9	93.0	89.3
Negro .....	1,834	1,523	1,490	0.5	0.6	1.0
Indian .....	10,745	11,343	11,206	2.9	4.7	7.8
Chinese .....	1,285	1,739	2,532	0.3	0.7	1.8
Japanese .....	1,585	2,441	6	0.4	1.0	*
All other** .....	24	.....	.....	*	.....	.....
Total native .....	281,340	176,262	99,823	74.8	72.4	69.8
Total foreign-born .....	94,713	167,067	43,096	25.2	27.6	30.2
Native white, total .....	268,936	163,910	87,360	71.5	67.4	61.1
Native parentage .....	162,127	92,337	56,401	43.1	38.2	39.5
Foreign parentage .....	68,606	46,246	20,781	18.2	19.0	14.5
Mixed parentage .....	38,203	24,727	10,178	10.2	10.2	7.1
Foreign-born white .....	91,644	62,373	40,330	24.4	25.6	28.2
URBAN POPULATION						
Total .....	133,420	84,554	38,787	100.0	100.0	100.0
White .....	130,531	82,631	36,969	97.8	97.7	95.3
Negro .....	1,455	931	628	1.1	1.1	1.6
Indian .....	66	11	2	*	*	*
Chinese, Japanese, other..	1,368	981	1,188	1.0	1.2	3.1
Native white, total .....	95,875	58,050	24,752	71.9	68.7	63.8
Native parentage .....	53,774	29,384	15,472	40.3	34.8	39.9
Foreign parentage .....	27,397	28,666	9,280	20.5	33.9	23.9
Mixed parentage .....	14,704	28,666	9,280	11.0	33.9	23.9
Foreign-born white .....	34,656	24,581	12,217	26.0	29.1	31.5
RURAL POPULATION.						
Total .....	242,633	158,775	104,137	100.0	100.0	100.0
White .....	230,049	143,652	90,721	94.8	90.5	87.1
Negro .....	379	592	862	0.2	0.4	0.8
Indian .....	10,679	11,332	11,204	4.4	7.1	10.8
Chinese, Japanese, other ..	1,526	3,199	1,350	0.6	2.0	1.3
Native white, total .....	173,061	105,860	62,608	71.3	66.7	60.1
Native parentage .....	108,353	63,533	40,929	44.7	40.0	39.3
Foreign parentage .....	41,209	42,307	21,679	17.0	26.6	20.8
Mixed parentage .....	23,499	42,307	21,679	9.7	26.6	20.8
Foreign-born white .....	56,988	37,792	28,113	23.5	23.8	27.0

\*Less than one-tenth of 1 per cent.

\*\*Includes 11 Filipinos and 13 Koreans.

TABLE 39—NATIVE POPULATION, DISTINGUISHED AS BORN IN STATE OR OUTSIDE STATE.

Class of Population.	1910	1900	1890	Urban: 1910	Rural: 1910
Total native population.....	281,340	176,262	*89,063	97,475	183,865
Born in state .....	99,314	62,699	21,618	34,001	65,313
Born outside state** .....	182,026	113,563	67,445	63,474	118,552
Per cent outside state .....	64.7	64.4	75.7	65.1	64.5
Native white population .....	268,936	163,910	*86,941	95,875	173,061
Born in state .....	89,907	53,502	20,989	33,637	56,270
Born outside state** .....	179,029	110,408	65,952	62,238	116,791
Per cent outside state .....	66.6	67.4	75.9	64.9	67.5
Native negro population .....	1,773	1,503		1,408	365
Born in state .....	339	222		262	77
Born outside state** .....	1,434	1,281		1,146	288
Per cent outside state .....	80.9	85.2		81.4	78.9
Native Indian population .....	10,424	10,773		63	10,361
Born in state .....	9,012	8,953		56	8,956
Born outside state** .....	1,412	1,820		7	1,405
Per cent outside state .....	13.5	16.9		†	13.6

\*Exclusive of 419 whites and 10,346 Indians, not distributed by state of birth.

\*\*Includes persons born in United States, state not specified; persons born in outlying possessions, or at sea under United States flag; and American citizens born abroad.

§Comparable figures not available.

†Per cent not shown where base is less than 100.

TABLE 40—STATE OR DIVISION OF BIRTH.

Place of Birth.	Number.		Per Cent of Total	
	1910	1900	1910	1900
Total native .....	281,340	176,262	100.0	100.0
Montana .....	99,314	62,699	35.3	35.6
Other states .....	182,026	113,563	64.7	64.4
Iowa .....	17,453	9,005	6.2	5.1
Minnesota .....	17,403	8,078	6.2	4.6
Missouri .....	15,703	10,562	5.6	6.0
Wisconsin .....	14,928	7,436	5.3	4.2
Illinois .....	14,527	8,823	5.2	5.0
Michigan .....	10,825	7,349	3.8	4.2
New York .....	8,464	8,145	3.0	4.6
Ohio .....	8,450	6,650	3.0	3.8
Pennsylvania .....	8,406	6,866	3.0	3.9
Indiana .....	6,208	3,431	2.2	1.9
Nebraska .....	5,655	2,680	2.0	1.5
Kansas .....	4,970	2,807	1.8	1.6
North Dakota .....	4,594	1,424	1.6	0.8
South Dakota .....	3,642	1,405	1.3	0.8
All other* .....	40,796	28,902	14.5	16.4
Divisions.				
New England .....	6,012	5,716	2.1	3.2
Middle Atlantic .....	17,866	15,917	6.4	9.0
East North Central .....	54,938	33,689	10.5	19.1
West North Central .....	69,422	35,961	24.7	20.4
South Atlantic .....	5,419	3,397	1.9	1.9
East South Central .....	5,687	3,660	2.0	2.1
West South Central .....	3,626	1,903	1.3	1.1
Mountain .....	108,402	69,752	38.5	39.6
Pacific .....	5,725	4,321	2.0	2.5
Other* .....	4,243	1,946	1.5	1.1

\*Includes persons born in United States, state not specified; persons born in outlying possessions, or at sea under United States flag; and American citizens born abroad.

TABLE 41—FOREIGN WHITE STOCK, BY NATIONALITY.

	White Population of Foreign Birth or Foreign Parentage, 1910						Foreign-born white population, 1900
Foreign Country in which born, or if Native, in which parents born.	Total.		Foreign Born.		Native.		
	Num-ber.	Per cent.	Num-ber.	Per cent.	Both parents foreign born.	One parent foreign born.	
All countries . . . . .	198,453	100.0	91,644	100.0	68,606	38,203	62,373
Austria . . . . .	12,820	6.5	8,349	9.1	3,983	488	3,786
Bulgaria . . . . .	1,458	0.7	1,451	1.6	7	.....	.....
Canada—French . . . .	6,604	3.3	2,874	3.1	1,943	1,787	3,266
Canada—Other . . . .	23,057	11.6	10,627	11.6	4,043	8,387	9,988
Denmark . . . . .	3,941	2.0	1,943	2.1	1,302	696	1,041
England . . . . .	20,736	10.4	8,980	9.8	5,710	6,046	8,075
Finland . . . . .	6,623	3.3	4,111	4.5	2,380	132	2,101
France . . . . .	1,385	0.7	639	0.7	348	398	539
Germany . . . . .	26,668	13.4	8,669	9.5	11,610	6,389	7,192
Greece . . . . .	1,934	1.0	1,905	2.1	18	11	20
Holland . . . . .	2,016	1.0	1,054	1.2	707	255	316
Hungary . . . . .	2,142	1.1	1,486	1.6	601	55	276
Ireland . . . . .	28,431	14.3	9,469	10.3	12,549	6,413	9,434
Italy . . . . .	8,001	4.0	6,592	7.2	1,253	156	2,199
Montenegro . . . . .	497	0.3	481	0.5	16	.....	.....
Norway . . . . .	13,942	7.0	7,169	7.8	4,859	1,914	3,354
Russia . . . . .	3,443	1.7	2,228	2.4	1,071	144	507
Scotland . . . . .	6,911	3.5	3,373	3.7	1,653	1,885	2,421
Sweden . . . . .	11,802	5.9	6,410	7.0	3,865	1,527	5,346
Switzerland . . . . .	2,024	1.0	988	1.1	568	468	796
Turkey in Asia . . . .	285	0.1	201	0.2	79	5	157
Turkey in Europe . .	494	0.2	491	0.5	2	1	.....
Wales . . . . .	2,320	1.2	884	1.0	693	743	935
All other . . . . .	*10,919	5.5	1,270	1.4	*9,346	303	624

\*Include native whites whose parents were born in different foreign countries; for example, one parent in Ireland and the other in Scotland.

TABLE 42—INDIAN, CHINESE AND JAPANESE POPULATION IN MONTANA BY COUNTIES, 1910.

COUNTY.	INDIAN.			CHINESE.			JAPANESE.		
	1910	1900	1890	1910	1900	1890	1910	1900	1890
The State	10,745	*11,343	†11,206	1285	1739	2532	1585	\$2441	6
Beaverhead	3	1	.....	33	73	92	29	89	1
Broadwater	.....	.....	.....	2	15	.....	42	.....	.....
Carbon	4	16	.....	.....	5	23	84	26	.....
Cascade	96	443	20	6	.....	.....	.....	.....	.....
Chouteau	1,209	1,429	190	40	86	42	156	628	.....
Custer	1	1,357	159	31	16	18	27	.....	.....
Dawson	.....	1	56	14	2	4	8	.....	.....
Deer Lodge	6	2	21	26	78	438	11	124	.....
Fergus	122	365	88	15	14	9	7	.....	.....
Flathead	344	35	.....	61	47	.....	146	303	.....
Gallatin	.....	.....	.....	62	55	39	55	1	.....
Granite	2	.....	.....	25	71	.....	2	.....	.....
Jefferson	.....	.....	7	23	57	46	60	.....	.....
Lewis and Clark	105	62	121	328	333	602	45	45	1
Lincoln	6	.....	.....	5	.....	.....	57	.....	.....
Madison	24	3	11	10	80	155	35	.....	.....
Meagher	.....	.....	14	20	9	37	39	.....	.....
Missoula	1,107	1,802	165	73	208	405	251	398	.....
Park	3	2	7	38	42	23	50	321	.....
Powell	10	.....	.....	14	.....	.....	67	.....	.....
Ravalli	14	14	.....	21	30	.....	43	31	.....
Rosebud	2,758	.....	.....	4	.....	.....	25	.....	.....
Sanders	179	.....	.....	38	.....	.....	26	.....	.....
Silver Bow	1	14	1	319	391	584	75	63	4
Sweet Grass	26	74	.....	14	18	.....	11	.....	.....
Teton	2,489	2,060	.....	3	17	.....	24	66	.....
Valley	1,774	1,793	.....	10	.....	.....	22	307	.....
Yellowstone	462	13	.....	50	90	15	148	11	.....

\*Includes 1,857 Indians on Crow Indian Reservation, not returned by counties in 1900, returned in 1910 in Rosebud and Yellowstone Counties.

†Includes 2,287 Indians on Crow Indian Reservation, not returned by counties in 1890, returned in 1910 in Rosebud and Yellowstone Counties, and 8,959 Indians specially enumerated in 1890, not distributed by counties.

§Includes 4 Japanese on Crown Indian Reservation, not returned by counties in 1900, returned in 1910 in Rosebud and Yellowstone counties.



---

---

## ROAD BUILDING BY STATE CONVICTS

---

---



## Road Building by State Convicts

In keeping with a similar policy prevailing in other states, Montana is utilizing the prisoners in the state penitentiary at Deer Lodge in the building and improvements of state roads and public highways. We believe this policy should have the approval of all people who have given any thought or study to the question of convict labor.

Under the laws of this state, the control of the prison is vested in the Board of State Prison Commissioners, consisting of the Governor, the Secretary of State and Attorney General. This Board has the full, exclusive and complete control of the employment of state convicts, and may, in its discretion, provide such work or service as it may from time to time deem wise, beneficial and expedient.

The letting by contract of the labor of any convict is forbidden, and manufacturing of any kind has never been permitted in the Montana State Prison.

The character of this work is such that it does not enter into competition with free labor. Much of this work, if not performed by convicts, would not be done at all. The convicts, it is said, are very much in favor of the system, which gives them a healthful outdoor occupation, and an allowance of time for good conduct from the terms given them to serve.

The employment of convicts in the building and improvements of good roads, is a policy endorsed by Samuel Gompers, President of the American Federation of Labor and approved by him as a humane, reformatory and economic measure. Speaking of this question, he says:

"It never has been the policy of the American Federation of Labor to advocate that prisoners in our various institutions should be kept in idleness, but our policy has been that they should be given employment in ways that would be beneficial to them, and not work a hardship on those who are engaged in free labor by having them contracted out in various industries, and in competition with free and honest labor. It is my opinion that the least possible competition of prisoners as against free labor would ensue in the building of roads, which would not only be beneficial to the prisoners, but would to some extent relieve the taxpayers."

The State is dealing with this question from a moral and humane standpoint. The system is working out satisfactorily, and the results therefrom will be of a lasting and beneficial nature to the public as a whole.

During the years 1913-14, the state convicts built four miles or road in Park county, twelve miles in Sanders county and twenty-seven miles in Flathead county. There is now, at the close of 1914, one crew composed of eighty-five convicts engaged in the construction of four miles of road near Chestnut, between Livingston and Bozeman. The total road mileage of the state is as follows:

Main highways partly improved, which includes all the main connecting roads designated as state highways, 5,552 miles; all other roads, 46,320 miles, making a total road mileage of 51,872 miles. On the following page is given Table No. 43, showing the valuations on all property in 1913, subject to tax for road and bridge purposes.

TABLE NO. 43—VALUATIONS ALL PROPERTY 1913, SUBJECT TO TAX FOR ROAD AND BRIDGE PURPOSES.

COUNTY.	Total assessed valuation 1913 available for bridge levy.....	Total valuation for road levy outside of cities, 1913.....	Rate of Taxation. 1913.	
			Road Mills	Bridge Mills
Beaverhead .....	\$ 9,571,943	\$ 8,090,415	5	1 $\frac{1}{4}$
Broadwater .....	3,755,722	3,315,789	..	..
Blaine .....	5,886,836	5,276,836	3	1
Big Horn .....	4,674,709	4,344,709	2 $\frac{1}{2}$	1 $\frac{1}{2}$
Carbon .....	7,715,146	6,115,146	5	2
Cascade .....	27,810,234	15,060,234	3	1 $\frac{1}{4}$
Chouteau .....	6,034,776	6,034,776	5	3
Custer .....	21,543,331	17,828,241	4	1
Dawson .....	13,522,813	12,272,813	5	2
Deer Lodge .....	9,012,817	5,867,798	3	1
Fergus .....	17,062,898	13,527,458	5	2
Flathead .....	12,517,112	9,441,270	5	2
Gallatin .....	16,098,585	11,774,678	3	1
Granite .....	3,524,226	3,134,226	4	1
Hill .....	7,661,302	6,211,302	5	2
Jefferson .....	5,986,258	5,559,259	2	1
Lincoln .....	5,879,184	4,468,204	5	2
Lewis and Clark .....	21,087,897	9,087,907	3	1
Madison .....	7,113,309	6,938,389	4	1
Meagher .....	9,633,574	8,481,487	3	2
Missoula .....	13,646,354	12,256,361	2 $\frac{1}{2}$	1 $\frac{1}{4}$
Mussellshell .....	10,606,132	9,346,132	4	1
Park .....	10,312,918	7,928,472	4	2
Powell .....	6,854,624	5,705,694	5	2
Ravalli .....	6,755,002	5,601,354	3	2
Rosebud .....	11,415,070	10,534,790	5	2
Sanders .....	5,503,634	5,503,634	3	2
Sheridan .....	6,418,836	6,017,939	2 $\frac{1}{2}$	1 $\frac{1}{2}$
Silver Bow .....	44,857,815	19,090,245	2	1
Sweet Grass .....	5,106,233	4,359,493	3 $\frac{1}{2}$	2
Stillwater .....	4,554,997	4,165,997	4	1 $\frac{1}{2}$
Teton .....	12,110,879	10,545,411	2	2
Yellowstone .....	17,470,983	10,632,154	5	1
Valley .....	6,441,353	5,641,353	5	..
Total .....	\$382,807,277	\$262,072,070	..	..

---

---

**OPINIONS OF THE ATTORNEY  
GENERAL**

---

---



# Opinions of the Attorney General

---

THE STATE OF MONTANA.  
Department of Attorney General.

Helena, July 10, 1913.

Hon. W. J. Swindlehurst,  
Commissioner Department of Labor and Industry,  
Helena, Montana.

Dear Sir:

Under date of the 8th instant, you wrote to this office requesting an opinion upon the point as to whether an employer of labor in this state has a right, under the statute, to work his help, employed by the month, on Decoration Day, May 30, and on Independence Day, July 4, and whether such employe is entitled to extra compensation for those days when working under his employer's instructions.

You are advised that May 30 and July 4 are both legal holidays (Revised Codes of 1907, Section 6217). Under the provisions of Section 5283 of the Revised Codes, the time of employes belongs to the employer to such extent as is usual in the business in which they serve, not exceeding in any case ten hours in the day. By your communication I infer that the employe to whom you make reference is employed by the month at a monthly wage. In such case I am of opinion that if the employer requests the employe to work on the days in question, and the employe submits to the demands of the employer, he, the employe, does not thereby become entitled to extra compensation.

I am further of the opinion that if it is not usual or customary for the employes engaged in similar lines of work to work on legal holidays, the employe in question might properly refuse to work on holidays, and such refusal would not be a proper ground upon which the employe might be discharged.

Very truly yours,

(Signed) D. M. KELLY,  
Attorney General.

## THE STATE OF MONTANA.

Department of Attorney General.

July 21, 1913.

Hon. W. J. Swindlehurst,  
Commissioner, Department of Labor and Industry,  
Helena, Montana.

Dear Sir:

I am in receipt of your letter of the 18th instant, asking for a construction of the law governing the employment of children under sixteen years of age, as applied to reputable theatres, plays, et cetera, when the child is employed by a traveling troupe and not a permanent resident of this state. You also call attention to the provisions of Section 1746 et seq., and Section 8347, Revised Codes of 1907.

Section 1746 prohibits the employment of children under sixteen years of age in the classes of business named in this section, which, however, does not name shows, theatres, etc., but does confer upon the Commissioner a wide discretion, and authorizes him to act for the protection of children "in any occupation not herein enumerated which is known to be dangerous or unhealthy, or which may be in any way detrimental to the morals of said children."

Section 8347 appears to have specific application to children employed by mendicants or in a "wandering business." That section was once before this department for construction and was given consideration in an opinion addressed to Mr. Otto Schoenfeldt, May 2, 1905, reported in Opinions Attorney General, 1905-06, at page 104. I am not prepared to say that Section 8347 does not, in extreme cases, apply, except in mendicant or wandering business, and am of the opinion, that it does strengthen the provisions of Section 1746, wherein the Commissioner is permitted to exercise his discretion, the purpose being the protection of the child, both physically and morally.

Where, therefore, in your judgment the occupation in which the child is employed is dangerous to its health or morals, you are authorized to exercise your authority, as given to you in that part of Section 1746 above quoted.

Very truly yours,

(Signed) D. M. KELLY,  
Attorney General

THE STATE OF MONTANA.  
Department of Attorney General.

Helena, September 30, 1913.

Hon. W. J. Swindlehurst,  
Commissioner of Labor and Industry,  
Helena, Montana.

Dear Sir:

I am in receipt of your letter of the 29th instant, submitting the question as to whether the provisions of Chapter 108, Session Laws of 1913, "limiting the hours of employment for female employes," applies to hospitals within the State of Montana.

Section 1 of this Act specifically enumerates the employments to which the Act relates, and Section 3 of the Act prescribes a penalty for violation thereof, in which it is stated:

"Any employer who shall require any female to work in any of the places mentioned in Section 1, more than the number of hours provided \* \* \* shall be guilty of a misdemeanor."

Hospitals are not mentioned nor referred to either directly or indirectly in Section 1 of the Act, hence they are not included within the prohibition named in the law.

Yours very truly,

(Signed) D. M. KELLY,  
Attorney General.

---

THE STATE OF MONTANA  
Department of Attorney General

Helena, June 5, 1914.

Hon. W. J. Swindlehurst,  
Commissioner of Labor and Industry,  
Helena, Montana.

Dear Sir:

I am in receipt of your letter, submitting the question:

"Do the provisions of Section 1739, Revised Codes of 1907, relating to the eight hour day, apply to engineers and janitors employed in schools and city buildings?"

The meaning of the phrase "on all works or undertakings, as used in Section 1739, Revised Codes, does not include public departments or any employment necessary to the successful operation of such department, nor does it include public officers, their assistants or aids, nor does it include care-takers or custodians of municipal operated buildings, unless there is some statute giving it that meaning, and there is no such statute. Hence, neither janitors nor those in charge of the heating plant of the character of buildings named in your inquiry are within the meaning of this statute. You will find a general discussion of this law in State v. Livingston Concrete etc. Mfg. Co., 34 Mont. 570.

Very truly yours,

(Signed) D. M. KELLY,  
Attorney General.

## THE STATE OF MONTANA.

Department of Attorney General.

Helena, August 10, 1914.

Hon. W. J. Swindlehurst,  
Commissioner, Department of Labor and Industry,  
Helena, Montana.

Dear Sir:

I have your letter of the 6th instant, wherein you submit for my consideration and opinion the following question:

"Does Section 1739, Article 5, Revised Codes of Montana, make any distinction between school districts and county, state and municipal government in the application of this law with relation to all contracts carried on or let by them? While investigating several violations of the eight hour law on public works in Havre, Hill County, this week, my attention was called to an alleged violation of this statute by a contractor and workmen engaged in the construction of a public school building, contract for the same having been let by the officers of the school district."

Section 400 of Chap. 76, Session Laws of 1913, provides:

"The term 'School District' as used in this article is declared to mean the territory under the jurisdiction of a single board designated as Board of Trustees."

In 35 Cyc., p. 813, the school district is defined as follows:

"A school district is a political or civil subdivision of the state formed for the purpose of aiding in the exercise of that governmental function which relates to the education of children."

Section 1739 of the Revised Codes of Montana of 1907 provides that the period of eight hours shall constitute a day's work on all works or undertakings carried on or aided by any municipal, county, or state government. The section referred to was enacted as Section 1 of Chapter 108 of the laws of 1907, and the title of the act conforms to the language of the section. The term "school district" is not employed either in the title or the body of the act.

In the case of *State v. Wilson*, 69 Pac. (Kan.) it was held that a school district is a municipality within the meaning of the eight hour law enacted by the Kansas Legislature. In the course of the opinion the court said:

"Strictly speaking, cities are the only real municipal corporations in this state. We have no doubt, however, that the lawmakers, by the use of the word 'municipality' in the connection in which it is employed in the eight hour law, intended to include school districts. In *re Intoxicating Liquor Cases*, 25 Kan. 751, 763, 37 Am. Rep. 284, Mr. Justice Brewer quotes approvingly from the case of *Holmes v. Carley*, 31 N. Y. 289, 290, as follows: 'A thing which is within the intention of the makers of a statute is as much within the statute as if it were within the letter, and a thing which is within the letter of the statute is not within the statute unless it be within the intention of the makers, and such construction ought to be put upon it as does not suffer it to be eluded.' In *State v. Grimes* (Wash.) 34 Pac. 836, it is held that a school district is a municipal corporation within a constitutional provision which directs that the permanent school fund 'may be invested in national, state, county, or municipal bonds.' In Iowa 'municipal corporations' were authorized to issue bonds for certain purposes. It was decided that school districts were included. *Curry v. District Tp.*, 62 Iowa, 102, 17 N. W. 191. Also, see *School Dist. v.*

Thompson, 5 Minn. 280, (Gil. 221), We are clear that it was the intention of the legislature to include employes of school districts within the provisions of the eight-hour law, and that it has done so by the use of the word 'municipality' in the statute."

However, in this state it is held that only incorporated cities and towns are municipal corporations, and that counties may not be classed as such. The Supreme Court says:

"The county is a body corporate (Sec. 2870, Rev. Codes), so likewise is a school district (Sec. 848)." *Hersey v. Nellson et al.*, 47. Mont. 132.

The foregoing case expressly holds that a county is a public corporation, a political subdivision of the state for governmental purposes, and, by inference at least, a school district is to be classified in a like manner.

It will be noted, however, that the eight-hour law embraces all works carried on or aided by the state, county or municipality. In view of this language it seems clear that it was within the intention of the legislature to include within the purview of the statute all works or undertakings carried on or aided by the public, and while the Kansas case above expressly holds that the eight-hour law is applicable to school districts because of the use of the word "municipality" in the statute, I am of the opinion that whether or not a school district in this state may be classified as a municipality for the purposes of bringing it within the statute, it seems clear that school districts should be included because the law is made to apply to works carried on or aided by the state or county.

Yours very truly,

(Signed) D. M. KELLY,  
Attorney General.



---

---

# STATISTICS OF RAILROADS

---

---



TABLE NO. 44—STATISTICS OF RAILROADS—NORTHERN PACIFIC RAILWAY COMPANY.

Number of men employed in each department, with the total number of days worked, total yearly compensation and average daily compensation.

Department	Number of Employees	Total Number of Days Worked	Total Yearly Compensation	Average Daily Compensation
General officers .....	2	540	\$ 13,215.00	\$24.47
Other officers .....	13	4,555	47,725.98	10.48
General office clerks .....	141	49,006	127,953.02	2.61
Station agents .....	120	43,403	118,802.38	2.74
Other station men .....	425	136,012	300,112.22	2.21
Enginemen .....	260	98,002	569,936.63	5.82
Firemen .....	260	98,002	379,417.30	3.87
Conductors .....	180	68,598	325,047.20	4.74
Other trainmen .....	548	196,319	647,080.95	3.30
Machinists .....	287	88,221	287,314.49	3.26
Carpenters .....	402	95,487	259,493.26	2.72
Other shop men .....	992	298,406	805,234.75	2.70
Section foremen .....	304	100,377	240,869.38	2.40
Other trackmen .....	3,303	669,214	1,149,248.14	1.72
Switch tenders, crossing tenders and watchmen .....	65	21,783	36,140.38	1.66
Telegraph operators and dispatchers .....	276	98,835	290,178.94	2.94
All other employees and laborers.....	1,176	389,097	794,943.96	2.04
Total.....	8,754	2,455,857	\$6,392,713.98	\$ 2.60

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
GREAT NORTHERN RAILWAY

Number of men employed in each department, with the total number of days worked, total yearly compensation and average daily compensation.

Department.	Number of Employees.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....				
Other officers .....	18	6,570	\$ 45,645.40	\$6.95
General office clerks .....	23	5,635	20,147.05	3.53
Station agents .....	114	34,948	92,612.82	2.65
Other station men .....	211	58,769	111,249.59	1.89
Enginemen .....	307	93,014	472,512.25	5.08
Firemen .....	330	88,433	305,092.78	3.45
Conductors .....	380	73,759	340,030.24	4.61
Other trainmen .....	750	139,134	413,227.58	2.97
Other shop men .....	869	234,690	563,256.19	2.40
Machinists .....	110	26,582	116,960.02	4.40
Carpenters .....	189	61,525	174,116.25	2.83
Section foremen .....	256	83,853	192,545.37	2.31
Other trackmen .....	2,816	980,485	1,744,690.45	1.78
Switch tenders, crossing tenders, watchmen	58	27,246	46,225.21	1.70
Telegraph operators and dispatchers.....	211	53,957	154,856.52	2.87
All other employes and laborers.....	711	207,329	462,263.31	2.23
Total .....	7,353	2,175,429	\$5,255,431.03	\$2.42

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY.

Number of men employed in each department, with the total number of days worked, total yearly compensation and average daily compensation.

Department.	Number of Employes.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....	8	1,440	\$ 12,649.60	\$8.77
Other officers .....	49	8,208	24,263.56	2.96
General office clerks .....	50	9,086	25,579.44	2.82
Station agents .....	111	17,070	37,673.16	2.21
Other station men .....	197	30,617	200,214.93	6.54
Enginemen .....	73	30,617	124,937.76	4.08
Firemen .....	124	24,180	116,289.03	4.81
Conductors .....	325	63,338	205,504.67	3.24
Other trainmen .....	155	26,747	117,622.46	4.40
Machinists .....	200	41,907	118,163.14	2.82
Carpenters .....	649	120,278	344,113.00	2.86
Other shop men .....	156	27,996	70,896.06	2.53
Section foremen .....	2,774	333,227	802,958.51	2.41
Other trackmen .....	10	1,448	3,622.57	2.50
Switch tenders, crossing tenders, watchmen	121	28,824	92,763.28	3.22
Telegraph operators and dispatchers.....	781	159,679	340,688.32	2.13
All other employes and laborers.....				
Total .....	5,783	924,662	\$2,637,939.49	\$2.85

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
CHICAGO, BURLINGTON & QUINCY RAILWAY COMPANY

Number of men employed in each department, with the total number of days worked, total yearly compensation, and average daily compensation.

Department	Number of Employees.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....				
Other officers .....	3	939	\$ 2,272.10	\$ 2.42
General office clerks .....	9	2,920	6,551.52	2.24
Station agents .....	6	1,565	2,736.86	1.75
Other station men .....	1	365	1,982.05	5.43
Enginemen .....	1	365	1,327.91	3.64
Firemen .....	7	2,190	9,828.86	4.49
Conductors .....	14	4,745	13,236.70	2.78
Other trainmen .....				
Machinists .....	10	2,817	7,777.60	2.76
Carpenters .....	14	4,745	11,642.30	2.45
Other shop men .....	116	31,978	50,350.57	1.59
Section Foremen .....				
Other trackmen .....	7	2,555	5,699.43	2.23
Switch tenders, crossing tenders, watchmen	10	2,817	9,318.71	3.31
Telegraph operators and dispatchers .....				
All other employes and laborers .....				
Total .....	198	58,001	\$ 122,724.61	\$ 2.92

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
OREGON SHORT LINE RAILWAY COMPANY.

Number of men employed in each department, with the total number of days worked, total yearly compensation, and average daily compensation.

Department.	Number of Employees.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....				
Other officers .....				
General office clerks .....				
Station agents .....	12	4,701	\$ 14,353.73	\$3.05
Other station men .....	19	9,444	22,215.83	2.35
Enginemen .....				
Firemen .....				
Conductors .....				
Other trainmen .....				
Machinists .....	3	1,945	8,372.73	4.30
Carpenters .....			1,836.60	
Other shopmen .....	19	6,501	20,263.55	3.12
Section foremen .....	21	7,420	16,800.27	2.26
Other trackmen .....	110	30,184	51,083.90	1.69
Switch tenders, crossing tenders, watchmen				
Telegraph operators and dispatchers .....	10	3,298	9,191.94	2.79
All other employes and laborers .....	63	17,350	36,098.77	2.08
Total .....	331	80,843	\$ 277,445.37	\$2.75

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
BUTTE, ANACONDA & PACIFIC RAILWAY COMPANY.

Number of men employed in each department, with the total number of days worked, total yearly compensation, and average daily compensation.

Department.	Number of Employees.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....	8	1,800	\$ 18,400.00	10.22
Other officers .....	9	2,700	20,360.00	9.84
General office clerks .....	8	2,403	12,232.25	5.09
Station agents .....	7	2,554	9,429.95	3.71
Other station men .....	29	9,666	30,083.60	3.11
Enginemen .....	30	10,941	59,507.65	5.44
Firemen .....	30	10,986	40,543.70	3.69
Conductors .....	25	10,377	52,248.65	5.03
Other trainmen .....	61	20,443	83,872.80	4.10
Machinists .....	13	4,122	19,679.35	4.77
Carpenters .....	13	4,217	19,868.80	4.71
Other shop men .....	111	31,743	108,166.95	3.41
Section foremen .....	12	4,053	12,224.20	3.01
Other trackmen .....	138	40,140	87,447.40	2.18
Switch tenders, crossing tenders, watchmen	16	4,333	12,098.60	2.79
Telegraph operators and dispatchers .....	19	7,131	23,107.80	3.24
All other employes and laborers .....	30	16,760	53,746.10	3.21
Total .....	559	184,369	\$ 663,067.80	\$3.60

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
GALLATIN VALLEY RAILWAY COMPANY.

Number of men employed in each department, with the total number of days worked, total yearly compensation and average daily compensation.

Department.	Number of Employees.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....	9	2,464	\$ 1,800.00	\$ .73
Other officers .....	6	1,848	2,600.00	1.41
General office clerks .....	3	924	1,247.49	1.35
Station agents .....	6	2,198	5,524.90	2.51
Other station men .....	7	2,126	3,435.00	1.62
Enginemen .....	3	881	4,066.65	4.62
Firemen .....	3	886	2,703.68	3.05
Conductors .....	5	1,322	4,881.43	3.69
Other trainmen .....	8	2,690	7,260.03	2.70
Machinists .....				
Carpenters .....				
Other shop men .....	1	134	280.50	2.09
Section foremen .....	4	1,460	3,240.00	2.22
Other trackmen .....	15	3,537	6,079.36	1.72
Switch tenders, crossing tenders, watchmen				
Telegraph operators and dispatchers .....	2	730	1,260.00	1.73
All other employes and laborers .....	3	917	2,103.28	2.29
Total .....	75	22,117	\$ 46,482.32	\$2.10

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
WHITE SULPHUR SPRINGS & YELLOWSTONE PARK RY. CO.

Number of men employed in each department, with the total number of days worked, total yearly compensation, and average daily compensation.

Department.	Number of Employes.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....	4	307	\$ 600.00	\$1.95
Other officers .....	1	365	1,500.00	4.11
General office clerks .....	1	307	600.00	1.95
Station agents .....				
Other station men .....	1	403	1,313.71	3.26
Enginemen .....	1	365	1,500.00	4.11
Firemen .....	1	365	1,020.00	2.79
Conductors .....	1	365	1,380.00	3.78
Other trainmen .....	1	365	900.00	2.47
Machinists .....				
Carpenters .....				
Other shop men .....				
Section foremen .....	1	365	900.00	2.47
Other trackmen .....	3	763	1,425.75	1.87
Switch tenders, crossing tenders, watchmen				
Telegraph operators and dispatchers .....				
All other employes and laborers.....	2	672	2,220.00	3.30
Total .....	17	4,642	\$ 13,359.46	\$2.88

TABLE NO. 44 (CONTINUED)—STATISTICS OF RAILROADS  
MONTANA, WYOMING & SOUTHERN RAILROAD COMPANY.

Number of men employed in each department, with the total number of days worked, total yearly compensation and average daily compensation.

Department.	Number of Employees.	Total No. Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General officers .....	6	1,460	\$ 10,745.04	\$7.36
Other officers .....	1	365	600.00	1.64
General office clerks .....	2	730	2,055.00	2.81
Station agents .....	3	850	2,580.00	3.03
Other station men .....				
Enginemen .....	2	749	4,123.56	5.50
Firemen .....	2	737	2,499.27	3.39
Conductors .....	2	693	3,425.70	4.94
Other trainmen .....	3	1,650	5,818.15	3.52
Machinists .....	2	597	3,220.00	5.39
Carpenters .....	2	1,277	3,965.00	3.10
Other shop men .....	4	1,697	4,769.55	2.81
Section foremen .....	4	1,460	3,420.00	2.34
Other trackmen .....	29	9,240	16,633.65	1.80
Switch tenders, crossing tenders, watchmen Telegraph operators and dispatchers .....				
All other employes and laborers .....				
Total .....	62	21,505	\$ 63,854.92	\$2.96

TABLE NO. 44—(CONTINUED)—STATISTICS OF RAILROADS—PASSENGERS CARRIED BY MONTANA RAILROADS, YEAR ENDING JUNE 30, 1913.

Railroad	No. of Passengers
Northern Pacific Railway Co.....	1,462,503
Great Northern Railway Co.....	1,243,773
White Sulphur Springs & Yellowstone Park Railway Co.....	9,617
Montana, Wyoming & Southern Railway Co.....	10,918
Butte, Anaconda & Pacific Railroad.....	291,520
Gallatin Valley Railway Company .....	93,249
Chicago, Milwaukee & St. Paul Railway .....	154,065
Chicago, Burlington & Quincy Railway Co. ....	197,844
Oregon Short Line Railway Co. ....	181,837
Total for all roads .....	3,649,327

TABLE NO. 44—(CONTINUED)—STATISTICS OF RAILROADS—RAILWAY ACCIDENTS IN MONTANA.  
(Compiled from official records of Railway Commission.)

RAILROADS	EMPLOYEES				OTHER THAN EMPLOYEES			
	Killed		Injured		Killed		Injured	
	1908	1909	1908	1909	1908	1909	1908	1909
Northern Pacific Railway .....	35	23	202	181	46	57	143	78
Great Northern Railway .....	16	30	549	465	17	17	79	69
Montana R. R. ....	1	0	9	12	2	1	0	1
Chicago, Burlington & Quincy .....	1	1	2	11	1	2	0	2
Chicago, Milwaukee & Puget Sound Ry. ....	2	2	4	23	0	2	0	8
Oregon Short Line Railway .....	0	0	1	0	2	2	1	1
Butte, Anaconda, & Pacific Ry. ....	1	0	16	15	5	0	2	5
Yellowstone Park R. R. ....	1	0	1	2	0	0	1	0
<hr/>								
	1910	1911	1910	1911	1910	1911	1910	1911
Northern Pacific Ry. ....	25	13	196	151	31	22	61	84
Great Northern Ry. ....	28	5	269	169	16	15	59	52
Butte, Anaconda, & Pacific Ry. ....	1	0	17	9	0	0	2	3
Chicago, Milwaukee & Puget Sound Ry. ....	10	7	41	34	2	5	7	8
Oregon Short Line Ry. ....	1	0	1	1	0	2	0	3
Chicago, Burlington & Quincy .....	2	1	9	10	2	1	3	2
Montana, Wyoming & Southern Ry. ....	0	0	1	1	0	0	0	0
Montana Western Ry. ....	0	0	0	0	0	0	0	0
Gilmore & Pittsburg Ry. ....	0	0	0	1	0	0	0	0
White Sul. Springs & Yellowstone Park Ry. ....	0	0	0	0	0	0	0	0
<hr/>								
	1912	1913	1912	1913	1912	1913	1912	1913
Northern Pacific Ry. ....	15	7	210	236	18	19	61	89
Great Northern Ry. ....	13	19	176	309	12	16	31	72
Chicago, Milwaukee & Puget Sound Ry. ....	11	11	64	157	8	10	8	17
Montana Western Ry. ....	0	0	0	0	1	0	1	0
Butte, Anaconda & Pacific Ry. ....	2	2	28	22	2	4	5	17
Montana, Wyoming & Southern Ry. ....	0	0	0	0	0	1	0	0
Oregon Short Line Ry. ....	0	2	1	9	3	1	0	7
Gilmore & Pittsburg Ry. ....	0	0	0	0	0	0	0	0
Chicago, Burlington & Quincy Ry. ....	3	1	6	4	2	1	4	0
White Sul. Springs & Yellowstone Park Ry. ....	0	0	0	1	0	0	0	0
Big Blackfoot R. R. ....	0	0	0	0	0	0	0	0
Gallatin Valley Ry. ....	0	0	0	8	0	0	0	0

SUMMARY OF RAILWAY ACCIDENTS IN MONTANA BY YEARS, 1908 TO 1913, INCLUSIVE.

YEAR	KILLED			INJURED		
	Employees	Other than Employees	Total	Employees	Other than Employees	Total
1908 .....	57	73	130	784	226	1,010
1909 .....	56	81	137	709	159	868
1910 .....	67	51	118	534	132	666
1911 .....	26	45	71	376	152	528
1912 .....	44	46	90	485	110	595
1913 .....	42	52	94	746	202	948
Total .....	292	348	640	3,634	981	4,615

---

---

## NATIONALITY OF EMPLOYES

---

---



TABLE NO. 45—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—  
NORTHERN PACIFIC RAILWAY IN MONTANA.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Cent Per	No.	Cent Per	No.	Cent Per	No.	Cent Per	No.	Cent Per
American .....	3,404	41.90	3,330	40.90	74	.88	283	3.48	3,121	38.41
English .....	70	.86	65	.80	5	.06	5	.06	65	.78
Irish .....	394	4.72	392	4.70	2	.02	8	.09	386	4.63
Scotland .....	44	.54	43	.53	1	.01	2	.02	42	.52
Wales .....	86	1.10	85	1.09	1	.01	1	.01	85	1.09
British America .....	184	2.28	181	2.24	3	.04	7	.08	177	2.20
Germany .....	19	.20	19	.20	...	...	...	...	19	.20
France .....	14	.15	11	.13	3	.04	1	.01	13	.14
Denmark .....	828	10.39	823	10.32	5	.06	20	.24	808	10.15
Scandinavia .....	2	.02	2	.02	...	...	...	...	2	.02
Spain and Portugal .....	125	1.53	124	1.52	1	.01	10	.12	115	1.41
Austria-Hungary .....	1,379	16.97	1,379	16.97	...	...	209	2.50	1,170	14.47
Italy .....	15	.18	15	.18	...	...	...	...	15	.18
Poland .....	24	.28	24	.28	...	...	...	...	24	.28
Finland .....	189	2.26	188	2.25	1	.01	...	...	189	2.26
Japan .....	20	.24	20	.24	...	...	...	...	20	.24
Chinese .....	12	.14	12	.14	...	...	...	...	12	.14
Negro .....	41	.49	41	.49	...	...	...	...	41	.49
Montenegro-Servia .....	717	8.84	717	8.84	...	...	88	1.05	629	7.72
Bulgaria and Roumania .....	372	4.76	371	4.76	...	...	77	.92	294	3.84
Greece .....	81	.97	81	.97	...	...	...	...	81	.97
Russia .....	6	.07	6	.07	...	...	...	...	6	.07
Netherlands .....	4	.04	4	.04	...	...	...	...	4	.04
Switzerland .....	95	1.17	94	1.17	1	.01	4	.05	91	1.12
Other Nationalities .....	8,124	...	8,027	...	97	...	715	...	7,409	...
Total .....	8,124	...	8,027	...	97	...	715	...	7,409	...

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES GREAT NORTHERN RAILWAY IN MONTANA.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	2,255	38.83	2,215	38.15	40	.68	74	1.25	2,181	37.59
English .....	75	1.26	74	1.25	1	.01	2	.02	73	1.24
Irish .....	105	1.79	105	1.79	.....	.....	.....	.....	105	1.79
Scotland .....	34	.57	33	.56	1	.01	2	.02	32	.55
Wales .....	5	.08	5	.08	.....	.....	.....	.....	5	.08
British America .....	28	.47	27	.46	1	.01	.....	.....	28	.47
Germany .....	140	2.38	138	2.36	2	.02	3	.03	137	2.35
France .....	21	.35	21	.35	.....	.....	.....	.....	21	.35
Denmark .....	14	.24	12	.22	2	.02	.....	.....	14	.24
Scandinavia .....	135	2.30	135	2.30	.....	.....	2	.02	133	2.28
Spain and Portugal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Austria-Hungary .....	277	4.74	277	4.74	.....	.....	3	.03	274	4.71
Italy .....	1,064	18.33	1,064	18.33	.....	.....	4	.05	1,060	18.27
Poland .....	49	.83	49	.83	.....	.....	.....	.....	49	.83
Finland .....	7	.11	7	.11	.....	.....	.....	.....	7	.11
Japan .....	230	3.96	230	3.96	.....	.....	1	.....	229	3.95
Chinese .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro .....	24	.40	24	.40	.....	.....	.....	.....	24	.40
Montenegro-Servia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulgaria and Roumania .....	83	1.43	83	1.43	.....	.....	.....	.....	83	1.43
Greece .....	1,106	18.90	1,106	18.90	.....	.....	4	.05	1,102	18.85
Russia .....	36	.61	36	.61	.....	.....	.....	.....	36	.61
Netherlands .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Switzerland .....	3	.05	3	.05	.....	.....	.....	.....	3	.05
Other Nationalities .....	83	1.43	83	1.43	.....	.....	.....	.....	83	1.43
Turks .....	24	.40	24	.40	.....	.....	.....	.....	24	.40
Armenians .....	32	.54	32	.54	.....	.....	.....	.....	32	.54
Total.....	5,830	.....	5,783	.....	47	.....	95	.....	5,735	.....

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES, CHICAGO, MILWAUKEE &amp; ST. PAUL RAILWAY IN MONTANA.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	2,008	40.18	1,952	39.06	56	1.12	136	2.74	1,872	37.44
English .....	112	2.28	112	2.28	.....	.....	.....	.....	112	2.28
Irish .....	258	5.27	258	5.27	.....	.....	7	.14	251	5.13
Scotland .....	47	.94	47	.94	.....	.....	1	.02	46	.92
Wales .....	4	.08	4	.08	.....	.....	2	.04	2	.04
British America .....	16	.32	16	.32	.....	.....	.....	.....	16	.32
Germany .....	206	4.17	206	4.17	.....	.....	9	.18	197	3.99
France .....	33	.67	33	.67	.....	.....	1	.02	32	.65
Denmark .....	35	.70	35	.70	.....	.....	1	.02	34	.68
Scandinavia .....	208	4.23	208	4.23	.....	.....	5	.10	203	4.13
Spain and Portugal .....	4	.08	4	.08	.....	.....	.....	.....	4	.08
Austria-Hungary .....	94	1.89	94	1.89	.....	.....	4	.08	90	1.81
Italy .....	279	5.66	279	5.66	.....	.....	3	.06	276	5.60
Poland .....	8	.16	8	.16	.....	.....	.....	.....	8	.16
Finland .....	6	.12	6	.12	.....	.....	2	.04	4	.08
Japan .....	232	4.69	232	4.69	.....	.....	.....	.....	232	4.69
Chinese .....	2	.04	2	.04	.....	.....	.....	.....	2	.04
Negro .....	4	.08	4	.08	.....	.....	.....	.....	4	.08
Montenegro-Servia .....	326	6.59	326	6.59	.....	.....	.....	.....	326	6.59
Bulgaria and Roumania .....	500	10.17	500	10.17	.....	.....	10	.20	490	9.97
Greece .....	231	4.67	231	4.67	.....	.....	6	.12	225	4.55
Russia .....	24	.48	24	.48	.....	.....	4	.08	20	.40
Netherlands .....	14	.28	14	.28	.....	.....	.....	.....	14	.28
Switzerland .....	1	.02	1	.02	.....	.....	.....	.....	1	.02
Other Nationalities .....	304	6.23	304	6.23	.....	.....	.....	.....	304	6.23
Total .....	4,956	.....	4,900	.....	56	.....	191	.....	4,765	.....

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—CHICAGO, BURLINGTON &amp; QUINCY RAILWAY IN MONTANA.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	47	27.38	46	26.68	1	.70	3	1.74	44	25.62
English.....										
Irish.....										
Scotland.....										
Wales.....										
British America.....										
Germany.....										
France.....										
Denmark.....										
Scandinavia.....										
Spain and Portugal.....										
Austria-Hungary.....										
Italy .....	10	5.81	10	5.81			2	1.16	8	4.66
Poland .....										
Finland.....										
Japan .....	10	5.81	10	5.81			3	1.74	7	4.07
Chinese.....										
Negro.....										
Montenegro-Servia.....										
Bulgaria and Roumania.....										
Greece.....	100	58.10	100	58.10			4	2.33	96	55.78
Russia.....										
Netherlands.....										
Switzerland.....										
Mexicans .....	5	2.90	5	2.90					5	2.90
Other Nationalities.....										
Total.....	172		171		1		12		160	

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH  
OF EMPLOYEES—OREGON SHORT LINE RAILROAD IN MONTANA.

	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
Countries	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	146	50.89	146	50.89	.....	.....	.....	.....	146	50.89
English .....	15	5.25	15	5.25	.....	.....	.....	.....	15	5.25
Irish .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scotland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wales .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
British America .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Germany .....	10	3.48	10	3.48	.....	.....	.....	.....	10	3.48
France .....	2	0.69	2	0.69	.....	.....	.....	.....	2	0.69
Denmark .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scandinavia .....	9	3.13	9	3.13	.....	.....	.....	.....	9	3.13
Spain and Portugal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Austria-Hungary .....	1	.35	1	.35	.....	.....	.....	.....	1	.35
Italy .....	61	21.23	61	21.23	.....	.....	.....	.....	61	21.23
Poland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Finland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Japan .....	23	8.01	23	8.01	.....	.....	.....	.....	23	8.01
Chinese .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montenegro-Servia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulgaria and Roumania .....	2	.70	2	.70	.....	.....	.....	.....	2	.70
Greece .....	18	6.27	18	6.27	.....	.....	.....	.....	18	6.27
Russia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Netherlands .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Switzerland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other Nationalities .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	287	....	287	....	.....	.....	.....	.....	287	....

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—BUTTE, ANACONDA &amp; PACIFIC RAILWAY.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	288	47.84	286	47.51	2	.33	31	5.15	257	42.69
English .....	5	.83	5	.83	...	...	...	...	5	.83
Irish .....	80	13.28	80	13.28	...	...	1	.16	79	13.12
Scotland .....	7	1.16	7	1.16	...	...	...	...	7	1.16
Wales .....	3	.49	3	.49	...	...	2	.33	1	.16
British America .....	12	1.98	12	1.98	...	...	2	.33	10	1.66
Germany .....	17	2.82	17	2.82	...	...	...	...	17	2.82
France .....	5	.83	5	.83	...	...	...	...	5	.83
Denmark .....	4	.67	4	.67	...	...	...	...	4	.67
Scandinavia .....	14	2.33	14	2.33	...	...	...	...	14	2.33
Spain and Portugal .....	29	4.81	29	4.81	...	...	4	.67	25	4.14
Austria-Hungary .....	88	14.64	88	14.64	...	...	4	.67	84	13.97
Italy .....	2	.33	2	.33	...	...	...	...	2	.33
Poland .....	...	...	...	...	...	...	...	...	...	...
Finland .....	...	...	...	...	...	...	...	...	...	...
Japan .....	...	...	...	...	...	...	...	...	...	...
Chinese .....	...	...	...	...	...	...	...	...	...	...
Negro .....	1	.16	1	.16	...	...	...	...	1	.16
Montenegro-Servia .....	6	.99	6	.99	...	...	...	...	6	.99
Bulgaria and Roumania .....	28	4.66	28	4.66	...	...	2	.33	26	4.32
Greece .....	2	.33	2	.33	...	...	...	...	2	.33
Russia .....	1	.16	1	.16	...	...	...	...	1	.16
Netherlands .....	...	...	...	...	...	...	...	...	...	...
Switzerland .....	2	.33	2	.33	...	...	...	...	2	.33
Other Nationalities .....	8	1.36	8	1.36	...	...	...	...	8	1.36
Total .....	602	...	600	...	2	...	46	...	556	...

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—GALLATIN VALLEY RAILWAY.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	30	58.00	29	56.00	1	2.00	.....	.....	30	58.00
English.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scotland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wales.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
British America .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Germany.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
France.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Denmark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scandinavia .....	1	2.00	1	2.00	.....	.....	.....	.....	1	2.00
Spain and Portugal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Austria-Hungary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Italy.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Poland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Finland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Japan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chinese.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montenegro-Servia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulgaria and Roumania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greece .....	21	40.00	21	40.00	.....	.....	.....	.....	21	40.00
Russia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Netherlands.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Switzerland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other Nationalities.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	52	.....	51	.....	1	.....	.....	.....	52	.....

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH  
OF EMPLOYEES—WHITE SULPHUR SPRINGS & YELLOWSTONE  
PARK RAILWAY.

[illegible]





TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—GILMORE &amp; PITTSBURG RAILWAY CO.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	18	55.	18	55.	.....	.....	.....	.....	18	56.
English .....	1	3.	1	3.	.....	.....	.....	.....	1	3.
Irish .....	3	10.	3	10.	.....	.....	.....	.....	3	10.
Scotland .....	1	3.	1	3.	.....	.....	.....	.....	1	3.
Wales .....	1	3.	1	3.	.....	.....	.....	.....	1	3.
British America.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Germany.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
France.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Denmark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scandinavia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spain and Portugal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Austria-Hungary.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Italy .....	3	10.	3	10.	.....	.....	1	3.	2	6.
Poland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Finland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Japan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chinese.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montenegro-Servia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulgaria and Roumania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greece .....	5	16.	5	16.	.....	.....	.....	.....	5	16.
Russia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Netherlands.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Switzerland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other Nationalities.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	32	.....	32	.....	.....	.....	1	.....	31	.....

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—BUTTE MINES.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	4,505	36.29	4,484	36.12	21	.17	361	2.88	4,144	33.41
English .....	1,683	13.56	1,683	13.56	.....	.....	17	.14	1,666	13.42
Irish .....	2,398	19.34	2,398	19.34	.....	.....	9	.07	2,389	19.27
Scotland .....	127	1.02	127	1.02	.....	.....	1	.01	126	1.01
Wales .....	161	1.28	161	1.28	.....	.....	.....	.....	161	1.28
British America .....	586	4.72	586	4.72	.....	.....	5	.04	581	4.68
Germany .....	160	1.28	160	1.28	.....	.....	2	.02	158	1.26
France .....	12	.11	12	.11	.....	.....	.....	.....	12	.11
Denmark .....	28	.22	28	.22	.....	.....	.....	.....	28	.22
Scandinavia .....	397	3.22	397	3.22	.....	.....	.....	.....	397	3.22
Spain and Portugal .....	3	.02	3	.02	.....	.....	.....	.....	3	.02
Austria-Hungary .....	902	7.26	901	7.25	1	.01	10	.09	892	7.17
Italy .....	405	3.26	405	3.26	.....	.....	3	.02	402	3.24
Poland .....	1	.01	1	.01	.....	.....	.....	.....	1	.01
Finland .....	653	5.26	653	5.26	.....	.....	1	.01	652	5.25
Japan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chinese.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montenegro-Servia .....	222	1.78	222	1.78	.....	.....	1	.01	221	1.77
Bulgaria and Roumania .....	24	.19	24	.19	.....	.....	.....	.....	24	.19
Greece .....	4	.03	4	.03	.....	.....	.....	.....	4	.03
Russia .....	43	.34	43	.34	.....	.....	.....	.....	43	.34
Netherlands .....	15	.14	15	.14	.....	.....	.....	.....	15	.14
Switzerland .....	18	.17	18	.17	.....	.....	.....	.....	18	.17
Other Nationalities .....	64	.50	64	.50	.....	.....	.....	.....	64	.50
Total.....	12,411	100.	12,389	99.82	22	.18	410	3.29	12,001	96.71

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—QUARTZ MINES OUTSIDE OF THE BUTTE DISTRICT.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	727	43.34	711	42.24	16	.98	25	1.53	702	41.75
English .....	105	6.30	105	6.30	.....	.....	1	.06	104	6.24
Irish .....	111	6.71	111	6.71	.....	.....	1	.06	110	6.65
Scotland .....	38	2.33	37	2.27	1	.06	2	.12	36	2.21
Wales .....	10	.61	10	.61	.....	.....	.....	.....	10	.61
British America .....	30	1.84	30	1.84	.....	.....	.....	.....	30	1.84
Germany .....	70	4.23	69	4.17	1	.06	2	.12	68	4.11
France .....	10	.61	10	.61	.....	.....	.....	.....	10	.61
Denmark .....	20	1.22	20	1.22	.....	.....	.....	.....	20	1.22
Scandinavia .....	149	9.15	147	9.09	2	.12	2	.12	147	9.09
Spain and Portugal .....	2	.12	2	.12	.....	.....	.....	.....	2	.12
Austria-Hungary .....	105	6.30	105	6.30	.....	.....	.....	.....	105	6.30
Italy .....	127	7.68	125	7.62	2	.12	.....	.....	127	7.68
Poland .....	6	.36	6	.36	.....	.....	.....	.....	6	.36
Finland .....	91	5.59	91	5.59	.....	.....	.....	.....	91	5.59
Japan .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chinese .....	3	.18	3	.18	.....	.....	.....	.....	3	.18
Negro .....	1	.06	1	.06	.....	.....	.....	.....	1	.06
Montenegro-Servia .....	39	2.29	39	2.29	.....	.....	.....	.....	39	2.29
Bulgaria and Roumania .....	4	.24	4	.24	.....	.....	.....	.....	4	.24
Greece .....	3	.18	3	.18	.....	.....	.....	.....	3	.18
Russia .....	7	.42	7	.42	.....	.....	.....	.....	7	.42
Netherlands .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Switzerland .....	3	.18	3	.18	.....	.....	.....	.....	3	.18
Other Nationalities .....	1	.06	1	.06	.....	.....	.....	.....	1	.06
Total .....	1,662	100.	1,640	98.66	22	1.34	33	2.01	1,629	97.99

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—COAL MINES OF MONTANA.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	811	23.15	805	22.98	6	.17	61	1.72	750	21.20
English .....	163	4.64	163	4.64	.....	.....	4	.11	159	4.53
Irish .....	62	1.76	62	1.76	.....	.....	.....	.....	62	1.76
Scotland .....	155	4.42	155	4.42	.....	.....	5	.14	150	4.28
Wales .....	33	.93	33	.93	.....	.....	.....	.....	33	.93
British America .....	9	.25	9	.25	.....	.....	.....	.....	9	.25
Germany .....	56	1.59	56	1.59	.....	.....	.....	.....	56	1.59
France .....	51	1.45	51	1.45	.....	.....	4	.14	47	1.33
Denmark .....	8	.22	8	.22	.....	.....	.....	.....	8	.22
Scandinavia .....	163	4.64	163	4.64	.....	.....	1	.02	162	4.62
Spain and Portugal .....	1	.02	1	.02	.....	.....	.....	.....	1	.02
Austria-Hungary .....	904	25.65	904	25.65	.....	.....	8	.22	896	25.53
Italy .....	409	11.55	409	11.55	.....	.....	9	.25	400	11.36
Poland .....	37	1.03	37	1.03	.....	.....	.....	.....	37	1.03
Finland .....	468	13.34	468	13.34	.....	.....	7	.20	461	13.19
Japan .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chinese .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Montenegro-Servia .....	96	2.73	96	2.73	.....	.....	.....	.....	96	2.73
Bulgaria and Roumania .....	26	.74	26	.74	.....	.....	.....	.....	26	.74
Greece .....	4	.11	4	.11	.....	.....	.....	.....	4	.11
Russia .....	31	.88	31	.88	.....	.....	1	.02	30	.86
Netherlands .....	2	.05	2	.05	.....	.....	.....	.....	2	.05
Switzerland .....	7	.20	7	.20	.....	.....	.....	.....	7	.20
Other Nationalities .....	23	.65	23	.65	.....	.....	.....	.....	23	.65
Total .....	3,519	100.	3,513	99.83	6	.17	100	2.82	3,419	97.18

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—MANUFACTURING INDUSTRIES OF THE STATE, INCLUDING SMELTERS.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	6,930	48.36	6,224	43.42	706	4.94	752	5.26	6,178	43.10
English .....	571	4.00	537	3.75	34	.25	32	.24	539	3.76
Irish .....	1,260	8.80	1,206	8.43	54	.37	85	.59	1,175	8.21
Scotland .....	251	1.75	239	1.67	12	.08	13	.09	238	1.66
Wales .....	51	.35	50	.34	1	.01	.....	.....	51	.35
British America .....	497	3.46	491	3.42	6	.04	5	.03	492	3.43
Germany .....	711	4.94	655	4.55	56	.39	19	.13	692	4.81
France .....	179	1.25	172	1.20	7	.05	6	.04	173	1.21
Denmark .....	79	.55	74	.52	5	.03	3	.02	76	.53
Scandinavia .....	1,559	10.87	1,503	10.48	56	.39	49	.34	1,510	10.53
Spain and Portugal .....	11	.08	10	.07	1	.01	1	.01	10	.07
Austria-Hungary .....	1,279	8.95	1,269	8.88	10	.07	18	.12	1,261	8.83
Italy .....	299	2.09	296	2.07	3	.02	4	.03	295	2.06
Poland .....	82	.57	69	.48	13	.09	2	.01	80	.56
Finland .....	142	.99	127	.88	15	.11	3	.02	139	.97
Japan .....	3	.02	3	.02	.....	.....	.....	.....	3	.02
Chinese .....	3	.02	3	.02	.....	.....	.....	.....	3	.02
Negro .....	6	.04	6	.04	.....	.....	.....	.....	6	.04
Montenegro-Servia .....	61	.42	61	.42	.....	.....	1	.01	60	.41
Bulgaria and Roumania .....	68	.47	68	.47	.....	.....	.....	.....	68	.47
Greece .....	58	.41	58	.41	.....	.....	.....	.....	58	.41
Russia .....	92	.64	91	.63	1	.01	1	.01	91	.63
Netherlands .....	49	.34	47	.33	2	.01	.....	.....	49	.34
Switzerland .....	38	.27	34	.24	4	.03	2	.01	36	.26
Other Nationalities .....	52	.36	52	.36	.....	.....	2	.01	50	.35
Total .....	14,331	100.	13,345	93.10	986	6.90	998	6.97	13,333	93.03

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—TELEPHONE AND TELEGRAPH COMPANIES.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	797	92.35	430	49.82	367	42.52	229	26.53	568	65.81
English .....	9	1.03	6	.73	3	.34	3	.34	6	.73
Irish .....	11	1.28	7	.85	4	.46	3	.34	8	.94
Scotland .....	3	.34	3	.34	.....	.....	.....	.....	3	.34
Wales .....	2	.23	2	.23	.....	.....	.....	.....	2	.23
British America .....	6	.73	6	.73	.....	.....	.....	.....	6	.73
Germany .....	9	1.03	4	.46	5	.57	.....	.....	9	1.03
France .....	1	.12	1	.12	.....	.....	.....	.....	1	.12
Denmark .....	3	.34	2	.23	1	.12	1	.12	1	.12
Scandinavia .....	8	.94	6	.73	2	.23	1	.12	7	.85
Spain and Portugal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Austria-Hungary .....	2	.23	2	.23	.....	.....	1	.12	1	.12
Italy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Poland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Finland .....	4	.46	.....	.....	4	.37	1	.12	3	.34
Japan .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chinese .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Negro .....	4	.46	4	.46	.....	.....	.....	.....	4	.46
Montenegro-Servia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulgaria and Roumania .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greece .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Russia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Netherlands .....	1	.12	1	.12	.....	.....	.....	.....	1	.12
Switzerland .....	2	.23	2	.23	.....	.....	.....	.....	2	.23
Other Nationalities .....	1	.12	1	.12	.....	.....	.....	.....	1	.12
Total .....	863	100.	477	55.39	386	44.61	239	27.69	623	72.31

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—WATER AND LIGHT COMPANIES.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	155	52.72	152	51.70	3	1.02	10	3.42	145	49.30
English .....	13	4.42	13	4.42	....	....	1	.34	12	4.08
Irish .....	12	4.08	12	4.08	....	....	....	....	12	4.08
Scotland .....	11	3.74	11	3.74	....	....	....	....	11	3.74
Wales.....	....	....	....	....	....	....	....	....	....	....
British America.....	4	1.36	4	1.36	....	....	....	....	4	1.36
Germany .....	22	7.48	22	7.48	....	....	....	....	22	7.48
France .....	3	1.02	3	1.02	....	....	....	....	3	1.02
Denmark .....	4	1.36	4	1.36	....	....	....	....	4	1.36
Scandinavia .....	37	12.58	37	12.58	....	....	....	....	37	12.58
Spain and Portugal.....	....	....	....	....	....	....	....	....	....	....
Austria-Hungary .....	7	2.38	7	2.38	....	....	....	....	7	2.38
Italy .....	11	3.74	11	3.74	....	....	....	....	11	3.74
Poland .....	2	.68	2	.68	....	....	....	....	2	.68
Finland.....	....	....	....	....	....	....	....	....	....	....
Japan.....	....	....	....	....	....	....	....	....	....	....
Chinese.....	....	....	....	....	....	....	....	....	....	....
Negro.....	....	....	....	....	....	....	....	....	....	....
Montenegro-Servia.....	....	....	....	....	....	....	....	....	....	....
Bulgaria and Roumania.....	....	....	....	....	....	....	....	....	....	....
Greece.....	....	....	....	....	....	....	....	....	....	....
Russia.....	2	.68	2	.68	....	....	....	....	2	.68
Netherlands .....	1	.34	1	.34	....	....	....	....	1	.34
Switzerland .....	10	3.42	10	3.42	....	....	....	....	10	3.42
Other Nationalities.....	....	....	....	....	....	....	....	....	....	....
Total.....	294	100.	291	98.98	3	1.02	11	3.76	183	96.24

TABLE NO. 45—(CONTINUED)—NUMBER AND NATIONALITY BY BIRTH OF EMPLOYEES—EXPRESS COMPANIES IN MONTANA.

Countries	Total Number Employ'd		Number Males Employ'd		Number Females Employ'd		Under 21 Years Employ'd		Over 21 Years Employ'd	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
American .....	203	87.11	203	87.11	....	....	14	6.02	189	81.08
English .....	5	2.14	5	2.14	....	....	1	.43	4	1.72
Irish .....	4	1.72	4	1.72	....	....	1	.43	3	1.29
Scotland .....	1	.43	1	.43	....	....	....	....	1	.43
Wales .....	1	.43	1	.43	....	....	....	....	1	.43
British America .....	4	1.72	4	1.72	....	....	....	....	4	1.72
Germany .....	6	2.58	6	2.58	....	....	....	....	6	2.58
France .....	4	1.72	4	1.72	....	....	....	....	4	1.72
Denmark .....	....	....	....	....	....	....	....	....	....	....
Scandinavia .....	3	1.29	3	1.29	....	....	....	....	3	1.29
Spain and Portugal .....	....	....	....	....	....	....	....	....	....	....
Austria-Hungary .....	....	....	....	....	....	....	....	....	....	....
Italy .....	....	....	....	....	....	....	....	....	....	....
Poland .....	....	....	....	....	....	....	....	....	....	....
Finland .....	....	....	....	....	....	....	....	....	....	....
Japan .....	....	....	....	....	....	....	....	....	....	....
Chinese .....	1	.43	1	.43	....	....	....	....	1	.43
Negro .....	....	....	....	....	....	....	....	....	....	....
Montenegro-Servia .....	....	....	....	....	....	....	....	....	....	....
Bulgaria and Roumania .....	....	....	....	....	....	....	....	....	....	....
Greece .....	....	....	....	....	....	....	....	....	....	....
Russia .....	....	....	....	....	....	....	....	....	....	....
Netherlands .....	....	....	....	....	....	....	....	....	....	....
Switzerland .....	....	....	....	....	....	....	....	....	....	....
Other Nationalities .....	1	.43	1	.43	....	....	....	....	1	.43
Total .....	233	100.	233	100.	....	....	16	6.88	217	93.12

---

---

# GENERAL STATISTICS

---

---



TABLE NO. 46—ASSESSMENT OF PROPERTY—TOTAL VALUATION OF STATE BY COUNTIES AND CLASSES OF PROPERTY.

FIRST BIENNIAL REPORT

215

	Valuation Fixed by the Assessors of the Various Counties and Equalized by the Boards of County Commissioners				Live Stock	All Other Real Estate	Total, Real and Personal Property		Valuation Fixed by State Board of Equalization	Railroad Valuation	Total Value of County
	Acres of Land	Value per Acre	Value								
Beaverhead .....	499,620	\$ 4.20	\$ 2,050,489	\$ 2,030,311	\$ 2,391,507	\$ 1,156,573	\$ 7,538,880	\$ 2,000,925	\$ 9,539,805		
Big Horn .....	126,638	8.39	1,063,600	404,166	1,692,910	275,769	3,436,439	1,527,082	4,963,521		
Blaine .....	339,470	8.74	1,269,280	1,163,379	1,649,111	861,453	4,943,223	1,572,858	6,516,081		
Broadwater .....	290,387	8.63	1,053,665	593,962	565,993	476,136	2,689,756	1,242,435	3,932,191		
Carbon .....	277,809	8.43	2,341,643	1,704,439	6,000,995	1,591,200	6,498,277	1,518,326	8,016,603		
Cascade .....	1,262,986	5.13	6,469,751	13,745,076	1,613,239	4,517,950	26,346,016	3,201,596	29,547,612		
Chouteau .....	1,625,436	4.23	2,851,229	1,225,721	1,551,686	1,113,406	6,443,042	1,753,700	8,195,742		
Custer .....	1,665,717	3.03	5,044,662	4,054,574	2,563,703	1,880,904	13,543,843	3,339,036	16,882,879		
Dawson .....	2,000,192	2.92	5,896,805	1,716,741	1,875,556	1,167,174	10,686,276	1,965,205	12,191,481		
Deer Lodge .....	152,139	3.63	551,855	5,371,291	1,223,199	2,092,233	8,178,578	1,056,401	9,234,979		
Fallon .....	896,222	4.60	4,119,900	1,082,838	1,635,132	485,807	7,324,277	697,068	8,021,345		
Fergus .....	1,630,948	5.22	8,503,602	3,948,876	2,210,161	2,640,825	17,303,464	2,258,444	19,561,908		
Flathead .....	844,152	5.78	4,883,610	2,953,155	1,411,835	1,762,255	10,040,855	2,542,892	12,583,747		
Gallatin .....	753,989	7.72	5,821,620	4,693,718	991,365	1,754,995	13,207,698	2,722,419	15,930,117		
Granite .....	239,237	3.10	740,326	655,210	487,938	383,911	2,267,385	1,387,266	3,654,651		
Hill .....	423,674	3.55	1,503,184	1,580,264	1,050,539	1,078,849	5,212,836	2,294,643	7,507,479		
Jefferson .....	307,520	3.13	960,216	1,314,578	478,505	448,295	3,201,439	2,746,422	5,947,861		
Johns and Clark .....	659,608	3.45	2,271,010	1,149,045	1,047,505	5,426,655	19,894,215	2,032,462	21,926,677		
Lincoln .....	532,872	4.51	2,402,940	407,170	1,054,705	390,573	3,906,158	2,633,913	5,540,071		
Madison .....	543,231	3.55	1,926,687	1,853,039	1,212,705	1,175,801	6,268,232	886,395	7,154,627		
Meagher .....	1,057,182	4.19	4,370,939	1,397,100	1,249,539	924,076	7,881,654	2,513,313	10,394,967		
Missoula .....	1,088,137	3.91	3,785,891	5,989,570	571,105	3,083,477	13,430,043	2,251,946	19,345,532		
Musselshell .....	1,600,915	3.76	6,011,384	1,520,017	791,179	1,196,350	9,518,330	2,221,946	11,750,876		
Park .....	638,808	5.03	3,219,366	3,185,240	1,000,193	1,563,830	8,964,631	1,623,316	10,587,947		
Powell .....	626,783	3.94	2,498,005	1,343,573	810,472	610,341	5,232,391	2,084,735	7,317,126		
Ravalli .....	382,617	7.10	2,716,943	2,337,867	650,280	963,865	6,668,955	607,928	7,276,883		
Richland .....	643,580	2.98	1,915,068	722,968	895,328	497,108	4,030,472	181,097	4,211,569		
Rosebud .....	1,597,876	3.30	5,217,261	1,093,809	1,694,440	886,768	8,892,905	3,233,886	12,126,791		
Sanders .....	435,663	3.03	1,323,261	635,436	207,387	688,627	2,854,711	2,844,646	5,699,357		
Sheridan .....	526,564	3.23	1,703,956	1,732,108	1,103,700	1,731,102	6,270,866	2,596,233	8,867,099		
Silver Bow .....	121,418	3.35	406,555	20,249,945	242,945	19,350,240	40,249,685	2,888,425	43,138,110		
Stillwater .....	477,023	7.22	3,678,511	666,463	637,208	328,124	5,310,306	830,193	6,140,499		
Sweet Grass .....	592,253	3.65	2,158,981	684,406	538,273	495,444	4,171,104	803,796	4,980,900		
Teton .....	749,577	5.30	3,947,355	2,240,536	1,437,065	1,476,784	9,121,740	2,676,529	11,798,269		
Toole .....	296,817	3.67	1,090,367	499,295	512,147	481,445	2,583,254	1,343,546	3,926,800		
Valley .....	369,388	3.67	1,340,225	1,376,952	1,059,534	1,206,168	5,382,879	2,373,567	7,756,448		
Yellowstone .....	689,617	7.98	5,506,361	6,494,942	1,229,104	3,577,777	16,808,184	2,985,187	19,793,371		
Total .....	25,836,655	.....	\$112,371,130	\$113,703,774	\$40,009,405	\$69,678,290	\$335,708,599	\$76,653,320	\$412,361,919		

TABLE NO. 47—ASSESSMENT OF PROPERTY—TOTAL ASSESSED VALUATION OF CATTLE FOR THE YEAR 1913.

COUNTY.	Beef		Cows		Stock Cattle		Three years and under		All Others		Total
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
Beaverhead	3,754	\$171,025	2,655	\$68,660	31,123	\$703,009	19,107	\$314,672	9,301	\$374,725	\$1,632,091
Big Horn	.....	.....	555	14,375	39,445	911,412	5,617	169,869	.....	.....	1,095,646
Blaine	.....	.....	1,801	33,695	7,047	158,685	1,719	22,085	59	2,615	217,030
Broadwater	159	7,155	1,895	25,215	5,587	125,936	4,520	69,671	63	2,120	230,097
Carbon	.....	.....	2,595	73,541	5,798	134,039	2,947	45,629	95	3,485	256,694
Cascade	453	18,365	3,539	94,914	24,402	549,714	4,043	27,249	153	7,220	697,462
Chouteau	.....	.....	1,265	36,145	10,748	242,507	580	7,907	.....	.....	294,859
Custer	.....	.....	3,300	86,745	53,674	1,209,221	6,173	142,636	183	7,475	1,446,077
Dawson	523	18,780	4,040	109,613	17,292	387,100	4,576	76,171	.....	.....	591,664
Deer Lodge	.....	.....	88	26,895	1,310	29,788	1,169	21,843	.....	.....	73,326
Fergus	77	3,340	3,648	101,975	17,550	394,895	2,385	40,372	.....	.....	540,582
Flathead	.....	.....	2,731	72,605	2,655	55,820	1,835	30,075	.....	.....	158,500
Gallatin	384	13,265	3,240	81,265	9,223	209,790	5,600	90,875	193	8,300	402,495
Gallatin	249	11,205	792	22,200	4,515	101,628	4,406	76,158	74	2,900	214,091
Granite	35	1,500	2,637	66,050	7,913	150,822	1,367	22,140	9	350	239,862
Hill	.....	.....	1,416	50,598	5,063	123,066	6,113	108,028	34	1,260	272,962
Jefferson	.....	.....	1,450	41,710	15,726	355,455	1,446	36,880	47	2,050	486,085
Lewis & Clark	.....	.....	5	1,460	479	6,615	.....	.....	.....	.....	29,380
Lincoln	388	11,305	1,561	46,555	19,791	445,300	4,460	64,735	.....	.....	600,415
Madison	1,116	43,825	1,552	20,115	11,232	252,738	4,004	59,979	80	3,200	340,317
Meagher	107	4,285	777	73,490	2,260	51,122	3,073	57,848	109	7,305	189,765
Missoula	.....	.....	2,277	35,240	6,728	156,681	1,015	19,129	20	530	211,580
Musselshell	.....	.....	1,114	35,240	6,497	142,631	5,278	84,459	.....	.....	305,330
Park	542	18,945	2,065	59,295	8,242	185,521	3,063	45,192	.....	.....	302,623
Powell	878	38,040	2,676	78,840	2,501	55,262	3,703	58,585	.....	.....	228,092
Ravalli	979	35,495	2,616	23,010	24,067	547,690	2,118	63,917	.....	.....	634,617
Rosebud	.....	.....	870	26,100	2,609	58,717	924	16,434	8	240	101,491
Sanders	.....	.....	3,463	76,947	3,812	93,228	2,701	39,021	.....	.....	209,196
Sheridan	.....	.....	1,822	55,505	1,329	31,595	703	10,260	.....	.....	97,570
Silver Bow	6	210	1,090	28,355	5,278	118,904	1,715	28,336	.....	.....	175,595
Stillwater	.....	.....	1,090	28,355	5,278	118,904	1,715	28,336	.....	.....	175,595
Sweet Grass	303	15,825	1,266	40,980	8,900	200,352	4,922	99,516	102	4,855	261,537
Teton	83	3,735	2,523	75,690	6,704	150,840	1,567	24,708	193	19,300	274,273
Valley	100	4,195	1,064	269,445	1,064	269,445	1,064	19,120	.....	.....	292,760
Yellowstone	625	28,125	2,998	80,855	8,788	197,737	2,760	62,943	63	3,150	372,810
Total	10,373	\$437,235	63,940	1,772,153	389,551	\$8,802,110	117,280	\$2,060,996	10,879	\$459,380	\$13,531,874

TABLE NO. 47—(CONTINUED)—ASSESSMENT OF PROPERTY—TOTAL ASSESSED VALUATION OF SHEEP FOR THE YEAR 1913.

COUNTY.	Sheep		Lambs		Rams		Total Value.
	No.	Value.	No.	Value.	No.	Value.	
Beaverhead .....	180,650	\$ 452,433	7,975	\$ 15,950	2,915	\$ 14,525	\$ 482,908
Big Horn .....	148,763	371,208	300	600	461	2,305	373,913
Blaine .....	264,364	660,910	57,245	114,490	2,954	15,967	791,367
Broadwater .....	45,215	113,037	3,965	7,930	479	2,395	123,362
Carbon .....	70,111	176,594	16,101	32,340	525	2,625	211,559
Cascade .....	121,449	303,404	5,900	11,800	905	4,525	319,729
Chouteau .....	179,496	427,084	7,050	14,100	1,309	7,340	448,524
Custer .....	244,126	610,322	20,472	40,944	1,814	9,070	660,336
Dawson .....	216,902	546,042	23,346	46,692	1,269	6,535	599,269
Deer Lodge .....	5,203	13,008	1,000	2,000	.....	.....	15,008
Fergus .....	170,143	425,355	70,353	140,706	1,276	6,380	572,441
Flathead .....	2,762	6,930	.....	.....	.....	.....	6,930
Gallatin .....	9,363	23,740	2,000	4,000	50	250	27,990
Granite .....	15,970	39,951	3,915	7,830	179	895	48,676
Hill .....	115,606	291,438	20,845	42,005	712	3,560	337,003
Jefferson .....	5,075	12,687	1,000	2,000	80	400	15,087
Lewis & Clark .....	144,590	361,550	.....	.....	.....	.....	361,550
Lincoln .....	21	70	.....	.....	.....	.....	70
Madison .....	115,089	286,355	.....	.....	2,583	12,915	299,270
Meagher .....	212,606	531,518	.....	.....	2,595	12,975	544,493
Missoula .....	5,259	14,848	.....	.....	.....	.....	14,848
Musselshell .....	120,622	275,963	.....	.....	1,636	6,760	282,723
Park .....	83,140	204,889	1,492	3,063	889	4,480	212,432
Powell .....	93,312	245,780	.....	.....	960	4,800	250,580
Ravalli .....	15,636	39,004	.....	.....	100	500	39,504
Rosebud .....	196,866	491,371	1,625	3,250	654	3,290	497,911
Sanders .....	908	2,450	.....	.....	.....	.....	2,450
Sheridan .....	10,658	24,989	1,830	3,660	79	387	28,736
Silver Bow .....	7,055	14,510	.....	.....	.....	.....	14,510
Stillwater .....	74,198	186,881	16,552	33,104	1,570	7,760	227,745
Sweet Grass .....	129,103	322,758	40,380	80,760	1,155	5,775	409,293
Teton .....	215,816	539,540	14,705	29,410	1,365	6,825	575,775
Valley .....	169,786	424,468	15,893	31,786	955	4,775	461,029
Yellowstone .....	110,540	276,350	46,305	92,610	577	2,885	371,845
Total .....	3,505,475	\$8,717,237	380,249	\$760,730	30,046	\$150,899	\$9,628,866

TABLE NO. 47—(CONTINUED)—ASSESSMENT OF PROPERTY—TOTAL ASSESSED VALUATION OF HORSES FOR THE YEAR 1913.

COUNTY.	Thoroughbred		Range		Common		Total Value...
	No.....	Value.....	No.....	Value.....	No.....	Value.....	
Beaverhead .....	105	\$ 20,150	8,188	\$ 296,263	3,284	\$ 171,305	\$ 487,718
Big Horn .....	36	8,300	3,166	110,570	2,161	121,925	240,795
Blaine .....	87	28,275	5,631	206,755	4,004	333,205	568,235
Broadwater .....	52	11,610	2,625	83,190	2,261	117,950	212,750
Carbon .....	11	4,000	3,918	131,560	4,278	250,645	386,205
Cascade .....	90	25,945	4,516	158,845	6,640	355,215	540,005
Chouteau .....	61	18,500	3,026	105,510	5,522	342,121	466,131
Custer .....	314	56,580	23,535	855,270	12,323	580,217	1,492,067
Dawson .....	214	39,125	17,910	691,215	11,316	733,561	1,463,901
Deer Lodge .....	30	4,300	939	33,880	1,067	54,390	92,570
Fergus .....	69	13,860	7,618	266,990	9,596	479,800	760,650
Flathead .....	39	7,740	2,341	81,800	3,721	187,645	277,185
Gallatin .....	71	17,525	4,263	149,890	7,559	414,630	582,045
Granite .....	16	4,000	1,917	67,095	2,024	92,125	163,220
Hill .....	58	11,150	3,149	118,213	6,929	437,499	566,862
Jefferson .....	15	3,700	1,980	70,155	1,396	102,720	176,575
Lewis & Clark...	78	16,875	2,581	90,815	3,189	168,615	276,305
Lincoln .....	8	1,750	788	27,780	436	22,815	52,345
Madison .....	71	26,540	5,621	211,035	4,203	215,620	453,195
Meagher .....	38	9,450	4,035	122,770	2,900	146,745	278,965
Missoula .....	47	5,725	2,939	98,835	3,064	159,070	263,630
Musselshell .....	50	14,525	3,312	126,503	3,484	225,915	366,943
Park .....	84	20,320	3,858	135,652	3,712	266,476	422,448
Powell .....	58	13,340	2,817	98,595	1,841	92,050	203,985
Ravalli .....	27	6,250	2,836	103,075	2,990	156,551	262,876
Rosebud .....	53	13,000	6,427	232,610	3,690	275,912	521,522
Sanders .....	12	4,850	1,073	37,555	1,265	64,775	107,180
Sheridan .....	30	14,350	5,194	188,797	9,569	535,332	738,479
Silver Bow .....	48	6,400	869	31,255	1,941	108,460	146,115
Stillwater .....	30	5,200	1,651	56,960	2,855	157,614	219,774
Sweet Grass .....	40	9,355	1,910	67,225	2,229	134,065	210,645
Teton .....	33	16,500	6,047	241,880	7,498	507,895	766,275
Valley .....	95	33,175	8,753	435,360	4,656	350,585	819,120
Yellowstone .....	20	7,600	2,041	77,795	4,728	284,375	369,770
Total .....	2090	\$499,965	157,474	\$5,808,698	148,331	\$8,647,323	\$14,956,486

TABLE NO. 47—(CONTINUED)—ASSESSMENT OF PROPERTY—TOTAL ASSESSED VALUATION OF HOGS, GOATS, ELK AND BUFFALO FOR 1913.

COUNTY.	Hogs		Goats		Elk		Buffalo	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Beaverhead .....	1,043	\$ 5,400	263	\$ 562				
Big Horn .....	600	3,510						
Blaine .....	617	3,583						
Broadwater .....	958	4,790	4	13				
Carbon .....	2,353	11,920						
Cascade .....	1,797	9,120						
Chouteau .....	948	5,362	4	20				
Custer .....	1,887	9,456						
Dawson .....	2,210	13,407						
Deer Lodge .....	262	1,667						
Fergus .....	2,378	14,390	23	115				
Flathead .....	2,136	11,060	210	420	6	\$180	25	\$2,500
Gallatin .....	3,260	19,175						
Granite .....	455	2,385	80	160				
Hill .....	1,057	5,380						
Jefferson .....	431	2,425	181	905				
Lewis & Clark .....	1,017	5,085						
Lincoln .....	209	1,045	6	20				
Madison .....	1,601	16,010	38	130				
Meagher .....	1,303	6,515						
Missoula .....	2,758	13,960						
Musselshell .....	1,050	5,535						
Park .....	2,342	15,083						
Powell .....	442	2,210						
Ravalli .....	3,014	13,997	100	400				
Rosebud .....	541	3,419						
Sanders .....	389	1,945						
Sheridan .....	1,740	8,888						
Silver Bow .....	490	2,675						
Stillwater .....	1,044	5,225						
Sweet Grass .....	1,517	7,310	624	1,248				
Teton .....	2,313	11,565						
Valley .....	665	3,325						
Yellowstone .....	1,300	6,500						
Total .....	46,627	\$253,322	1,533	\$3,993	6	\$180	25	\$2,500

TABLE NO. 48.—NATURALIZATION—NATURALIZATION PAPERS ISSUED AS REPORTED BY THE CLERKS OF THE DISTRICT COURTS, 1912.

COUNTIES.	Austria	Belgium	British America	Denmark	England	Finland	France	Germany	Greece	Ireland	Italy	Norway	Russia	Scotland	Sweden	Switzerland	Turkey	Spain	Bulgaria	Wales	Holland	Bohemia	All Others	Total
Beaverhead ..	1		1	4	3			2		1				1									13	
Blaine .....	1		1	2				2		1			2										11	
Broadwater ..			1												1								2	
Big Horn .....																								
Carbon .....	19		4		6	31		2			12	5	3	3	4	3				1		4	94	
Chouteau .....			3	1	3			4		2		4	4	3	2	3	2						25	
Cascade .....	12		11	3	4	14		4	2	12	1	10	1	13	14	4	2				1	2	97	
Custer .....			4	6	6		1					11	1	2	3	11							32	
Dawson .....	1		6	7	1			11		4	3	30	2	1	3	4	3	1					73	
Deer Lodge ..	8		2					2		24	1	9	1	1	1	9							56	
Fergus .....	12		9		5	4		3		1	1	14	3	10	6	3					2	1	74	
Flathead .....	1		5					7			2	11	5		1	2							31	
Gallatin .....			4	3	1			2			1		5			2					9		26	
Granite .....	1				2			1															5	
Hill .....	1		8					2		1													36	
Jefferson .....						2							16		5	2	3	1			1		7	
Lewis & Clark ..	20	2	3	3	7			5		2			8	2	16	1				1			70	
Lincoln .....	1		5					1		1			1										9	
Madison .....	1		2	3				1		1			1		1						1		11	
Meagher .....	1				3		1	3				13		3	1	2							27	
Musselshell .....	15		2		7	1	2	4	2	2		5	2	6	1	1						1	50	
Missoula .....	5		21		1	18		7		1	2	19		1	27	3			1				107	
Park .....	5		2		4		3	2			3	12			2								33	
Powell .....								4							1								6	
Ravalli .....	1		5		2	3		2		1		1	1		4	3					1		23	
Rosebud .....				1	3			1		2		9		4	6								26	
Sanders .....			1																				2	
Silver Bow .....	6		12	2	67	10		13	1	93	5	8	7	6	8	2				3	1	10	254	
Sweet Grass ..			1	1	1			1		2		15											21	
Sheridan .....																								
Stillwater .....																								
Teton .....	1		2		4		3	2		1		7	2	2	1						8	2	35	
Valley .....	2	2	36		21		1	10			1	26	4								1		104	
Yellowstone ..	1		10		2			12			2	18	2	5	8	2					4	1	67	
	116	4	122	69	153	83	12	111	5	152	33	260	28	53	128	30	3	1	2	5	29	3	25	1427

TABLE NO. 48—(CONTINUED)—NATURALIZATION—NATURALIZATION PAPERS  
ISSUED AS REPORTED BY THE CLERKS OF THE DISTRICT COURTS, 1913.

COUNTIES.	Austria	Belgium	British America	Denmark	England	Finland	France	Germany	Greece	Ireland	Italy	Norway	Russia	Scotland	Sweden	Switzerland	Bulgaria	Wales	Holland	Bohemia	All Others	Total
Beaverhead . . . .		1	3					2		1			1		1						1	9
Blaine . . . . .	1		2	2	1		1	5		1		11		4		1					1	34
Broadwater . . . .	1				2		1	1	1			1								1	8	
Big Horn . . . . .			2	1								1							1			3
Carbon . . . . .	9	1	3			13		1		3	4	2	2	2		3					3	53
Chouteau . . . . .	1		9	1	4			9		3	1	21	1	8	10	2		1	1		1	71
Cascade . . . . .	3		3		8	20	1	10		2	2	11	1	6	15	3				1	89	
Custer . . . . .												17	16	4	6			1				79
Dawson . . . . .	11	1	12	42	5		4	18		7	1	91	8	9	9				6		2	134
Deer Lodge . . . .	1		2							12		1	1	1	3							228
Fergus . . . . .	17		10	4	5	9		8	2	2		23	1	5	12	2		2	5	2	4	20
Flathead . . . . .	1		6		2			1		2	2	19	1	2	4							113
Gallatin . . . . .			2	1	1			2				1				1			3			40
Granite . . . . .						1						1										11
Hill . . . . .	3			5	20		1	12			3	52			19	1					28	44
Jefferson . . . . .	1					1		1							1							4
Lewis & Clark . .	17	1	3	1	5			2		1	2	4		1	5					3		45
Lincoln . . . . .	1		2					2				1										6
Madison . . . . .			2					1														4
Meagher . . . . .	1		5	3				4				14	1	2	1							36
Musselshell . . . .	18		3	3	6	2		14	1	3		20	4	4	6	2			1			84
Missoula . . . . .	2		11	1	1	3		5		5	1	10	5	1	7							52
Park . . . . .	15		2		2		1	3		2					3						1	33
Powell . . . . .	2			4	2							2			2							12
Ravalli . . . . .	2		4					1							3							10
Rosebud . . . . .	2		1		3			1		1	1	6		4	3					2		24
Sanders . . . . .	1		6	2	1			4				3	6	5	2				1			26
Silver Bow . . . . .	8	1	5	2	23	7		6		48	1	3	6	5	3	3		2				122
Sweet Grass . . . .								2					10	3	1							16
Sheridan . . . . .			10	57				13					63		11							154
Stillwater . . . . .								4		2			4		1	1						12
Teton . . . . .	4	4	15	4	9	1	8	8		3		33	1	15	2							116
Valley . . . . .	6		56	30				13			2	55	7		10				3	6		179
Yellowstone . . . .	5	1	4	1	5		1	16		1		11	4	5	7	4			9	3		77
Total . . . . .	150	10	153	192	147	57	18	182	4	102	25	524	58	79	158	21	1	9	36	8	51	1985

TABLE NO. 49—MARRIAGES AND DIVORCES—LICENSES ISSUED AND DIVORCES GRANTED AS REPORTED BY THE CLERKS OF THE DISTRICT COURTS FOR THE YEARS 1912 AND 1913.

COUNTY.	Marriage Licenses Issued	Divorces Granted Upon Complaint of				Total Divorces Granted		Percentage of Divorces Granted in Each County		Percentage of Divorces Granted to Marriage Licenses Issued		
		Wife		Husband								
	1912	1913	1912	1913	1912	1913	1912	1913	1912	1913	1912	1913
Beaverhead ..	90	72	9	11	1	1	10	12	1.12	1.12	11.11	16.66
Broadwater ..	26	20	5	1	1	2	6	3	.69	.27	24.	15.
Big Horn .....	...	17	...	10	...	8	...	18	...	1.67	...	106.
Blaine .....	28	64	6	12	2	1	8	13	.92	1.21	28.50	20.31
Carbon .....	113	127	12	8	4	4	16	12	1.84	1.12	14.15	9.45
Cascade .....	452	565	38	48	13	16	51	64	5.75	6.04	11.28	11.32
Chouteau .....	59	59	1	6	1	2	2	8	.23	.74	3.40	13.56
Custer .....	215	232	38	45	7	7	45	52	5.07	4.84	20.90	22.37
Dawson .....	154	220	7	13	15	5	22	18	2.48	1.62	14.28	8.18
Deer Lodge ..	117	113	5	9	1	1	6	10	.69	.92	5.12	8.84
Fergus .....	175	222	27	27	12	29	39	56	4.40	5.24	22.22	20.52
Flathead .....	228	227	39	40	10	15	49	55	5.52	5.12	21.49	24.22
Gallatin .....	182	200	20	29	14	14	34	43	3.83	4.02	18.69	21.50
Granite .....	15	12	1	1	0	0	1	1	.11	.09	6.66	8.33
Hill .....	133	203	16	29	8	21	24	50	2.70	4.66	18.05	24.63
Jefferson .....	30	31	3	5	2	3	5	8	.56	.74	16.66	25.80
Lewis & Clark ..	348	332	70	76	28	23	98	99	11.05	9.21	28.16	29.81
Lincoln .....	46	43	5	6	0	1	5	7	.56	.65	10.08	16.27
Madison .....	31	36	9	7	1	1	10	8	1.12	.74	32.25	22.22
Meagher .....	25	38	0	1	1	1	1	2	.11	.18	4.	5.27
Missoula .....	302	299	40	64	28	23	68	87	7.66	8.14	22.50	29.
Musselshell ..	81	103	7	7	4	2	11	9	1.23	.81	13.58	8.73
Park .....	161	137	17	27	18	7	35	34	3.94	3.17	21.74	24.82
Powell .....	60	65	5	7	1	6	6	13	.69	1.17	10.	20.
Ravalli .....	85	93	23	13	6	10	29	23	3.26	2.15	34.11	24.73
Rosebud .....	41	38	4	11	2	5	6	16	.69	1.50	14.63	42.10
Sanders .....	41	52	6	7	2	3	8	10	.90	.94	19.51	19.23
Silver Bow .....	884	950	125	182	44	53	169	235	19.05	22.70	19.11	24.73
Sweet Grass ..	18	35	7	0	2	1	9	1	1.01	.09	50.	2.83
Sheridan .....	...	158	...	3	...	3	...	6	...	.57	...	3.79
Stillwater .....	...	23	...	1	...	0	...	1	...	.09	...	4.34
Teton .....	82	95	6	2	4	4	10	6	1.13	.57	12.19	6.31
Valley .....	227	156	16	11	6	4	22	15	2.46	1.40	9.69	9.61
Yellowstone ..	413	432	59	47	23	22	82	69	9.24	6.50	19.85	15.97
Total .....	4862	5469	626	766	261	298	887	1064	100.00	100.00	19.45	18.24

TABLE NO. 50—TUBERCULOSIS—COMPARATIVE RECORD OF DEATHS FROM TUBERCULOSIS IN SILVER BOW COUNTY FROM AUGUST, 1907, TO DECEMBER 31, 1913.

YEAR	Percentage											
	Total	Tuberculosis	Deaths from all causes	Tuberculosis	Deaths from all causes	Tuberculosis	Deaths from all causes	Tuberculosis	Deaths from all causes	Tuberculosis	Deaths from all causes	Tuberculosis
1907	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1908	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1909	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1910	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1911	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1912	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1913	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1907	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1908	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1909	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1910	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1911	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1912	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1913	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1907	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1908	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1909	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1910	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1911	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1912	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5
1913	70	423	123	70	190	20.9	16.5	77	70	190	20.9	16.5

TABLE NO. 51—SCHOOL STATISTICS—ENROLLMENT BY COUNTIES  
NUMBER OF TEACHERS, AVERAGE SALARIES AND OTHER EXPENDITURES, AND NUMBER OF SCHOOL HOUSES IN EACH COUNTY.

COUNTY.	Pupils Enrolled	No. of Teachers	Average Salary Paid Monthly	Total Paid Teachers	Other Ex- penditures	Number of School Houses		
Beaverhead .....	1,232	8	58	\$161.33	83.30	53,192	47,118	39
Big Horn .....	417	1	21	110.00	70.24	14,711	10,351	17
Blaine .....	1,075	11	46	95.00	66.80	31,065	21,979	31
Broadwater .....	703	8	31	103.00	70.00	20,244	42,379	27
Carbon .....	2,904	19	78	98.00	72.33	64,898	83,579	48
Cascade .....	6,218	29	206	106.50	80.30	177,482	235,934	114
Chouteau .....	1,258	7	56	82.85	64.30	30,841	16,398	39
Custer .....	2,649	28	177	86.00	65.00	108,028	112,314	154
Dawson .....	3,336	21	143	80.00	62.33	69,240	59,694	129
Deer Lodge .....	1,720	9	53	124.50	82.94	56,044	53,932	23
Fergus .....	2,996	28	155	84.84	70.00	109,734	129,164	134
Flathead .....	4,397	27	138	141.16	75.47	114,087	171,990	81
Gallatin .....	3,239	18	111	115.62	76.50	92,637	79,728	70
Granite .....	615	6	26	125.83	74.70	23,994	18,330	17
Hill .....	2,674	21	99	71.80	68.25	61,184	95,663	73
Jefferson .....	879	9	34	115.50	78.00	26,572	22,546	30
Lewis & Clark .....	2,829	12	110	115.50	76.07	123,929	133,043	53
Lincoln .....	952	13	38	89.16	79.13	38,350	31,998	31
Madison .....	1,503	9	64	104.50	70.45	43,526	30,193	55
Meagher .....	844	5	51	118.00	71.20	33,133	22,582	29
Missoula .....	4,098	26	140	114.50	81.45	147,510	109,756	72
Musselshell .....	1,271	8	79	71.87	68.22	35,621	48,759	37
Park .....	2,040	9	89	106.00	70.00	64,776	35,113	65
Powell .....	1,105	4	51	125.00	76.00	36,724	25,476	36
Ravalli .....	2,539	17	68	105.90	79.60	61,812	46,962	34
Rosebud .....	1,076	8	61	90.00	67.25	43,676	38,413	51
Sanders .....	1,109	14	50	81.00	74.77	38,922	38,731	40
Sheridan .....	2,883	10	99	75.50	56.25	41,769	50,001	98
Silver Bow .....	7,863	17	223	128.25	94.08	253,459	237,363	36
Stillwater .....	1,013	3	51	111.33	66.10	28,378	22,785	41
Sweet Grass .....	808	6	45	122.00	68.85	28,612	29,239	37
Teton .....	2,233	26	97	94.00	70.50	75,237	78,511	71
Valley .....	1,600	14	71	84.65	65.15	43,714	47,285	63
Yellowstone .....	4,017	21	119	118.00	87.28	116,198	147,684	62
Total .....	75,806	472	2938	\$108.30	\$ 74.09	.....	.....	1927

\*Male.

\*\*Female.

Year ending August 31st, 1913.

Total paid to teachers, \$2,309,299; total other expenditures, \$2,374,993.

TABLE NO. 52.—INSURANCE—BUSINESS DONE BY FRATERNAL SOCIETIES IN MONTANA.  
(Compiled from the annual report of the State Insurance Commissioner.)

FIRST BIENNIAL REPORT

225

	Amount. 1912.	Amount. 1913.	Recd from Montana Members.	Claims Paid 1913.
American Yeomen, Brotherhood of	\$ 5,011,500.00	\$ 5,079,500.00	\$ 41,532.18	\$ 56,960.05
Ancient Order United Workmen	185,000.00	446,000.00	6,715.55	1,932.80
Catholic Knights of America	91,710.82	90,710.82	2,207.28	8,000.00
Catholic Order of Foresters	712,250.00	659,500.00	11,831.54	19,000.00
Court of Honor	321,500.00	345,000.00	4,738.84	1,604.21
Degree of Honor	681,500.00	720,000.00	13,104.41	8,000.00
Equitable Fraternal Union	29,000.00	26,000.00	273.24	.....
Fraternal Aid Association	73,500.00	41,500.00	476.16	.....
Fraternal Brotherhood	2,353,000.00	1,640,000.00	35,121.30	64,230.48
Fraternal Union of America	830,800.00	635,300.00	5,107.95	7,631.90
*Grand Carniolian Slovenian, Catholic U.	.....	389,500.00	4,918.00	4,832.36
Homesteaders, The	324,000.00	268,000.00	3,527.16	2,172.43
Ind. Order of Foresters	442,249.00	345,125.00	7,904.13	4,560.00
Knights of Columbus	657,000.00	696,000.00	8,899.04	3,900.00
Knights & Ladies of Security	1,935,000.00	2,095,000.00	24,611.05	14,593.98
Knights of Macabees of World	1,750,000.00	1,570,000.00	20,765.37	23,232.00
Ladies of Pythias	593,622.00	546,169.00	14,076.66	5,000.00
Ladies' Catholic Benevolent Assn.	662,000.00	691,500.00	8,446.47	6,000.00
Ladies of Macabees of World	1,869,351.38	2,007,601.38	30,722.38	13,889.09
Ladies of Modern Macabees	115,500.00	139,500.00	1,543.70	.....
Modern Brotherhood of America	1,330,250.00	920,250.00	15,560.98	12,050.00
Modern Woodmen of America	10,665,000.00	9,747,500.00	94,180.06	104,000.00
Mystic Toolers	236,000.00	205,000.00	3,720.85	.....
National Protective Legion	151,960.00	153,810.00	2,942.73	3,705.75
*National Union	.....	261,000.00	7,332.05	5,000.00
*Railway Mail Association	.....	324,000.00	998.00	138.00
Royal Arcanum	167,615.07	162,500.00	2,767.72	6,000.00
Royal Highlanders	2,661,560.00	2,799,000.00	29,490.40	23,533.34
Royal Neighbors of America	1,999,750.00	2,239,750.00	18,076.19	14,500.00
Sons of Norway	.....	39,000.00	948.00	.....
*Supreme Tribe of Ben Hur	.....	1,000.00	.....	.....
United Artisans	214,000.00	229,000.00	2,335.31	.....
United Order of Foresters	11,187,200.00	11,120,500.00	138,511.45	131,250.00
Women of Woodcraft	5,068,600.00	5,003,600.00	61,247.05	50,500.00
*Admitted 1913.	.....	.....	.....	.....

TABLE NO. 52 (CONTINUED)—INSURANCE—SUMMARY OF INSURANCE  
FOR THE STATE OF MONTANA FOR THE YEARS 1912 AND 1913.  
(Compiled from the annual report of the State Insurance Commissioner.)  
LIFE INSURANCE.

	Number	Amount
Policies in force December 31, 1912.....	33,337	\$75,660,393.92
Policies issued during year 1913.....	8,233	18,389,542.05
Totals .....	41,570	\$94,049,935.97
Policies ceased to be in force 1913 .....	4,365	10,536,161.63
In force December 31, 1913 .....	37,205	\$83,513,774.34

	1912	1913	Increase & Decrease
Insurance in force .....	\$75,660,393.92	\$83,513,774.34	\$7,853,380.42
Premium Receipts .....	2,373,581.25	2,648,819.32	275,238.07
Losses Incurred .....	739,962.55	722,611.16	* 17,351.39
Losses Paid .....	779,500.09	730,902.60	* 48,597.49

\*Decrease.

FIRE INSURANCE.

	Risks Written		Premiums Received	Losses Paid
	1912	1913		
2 Montana Co's.....	\$ 1,510,382.00	\$ 2,335,030.84	\$ 84,438.21	\$ 12,292.60
74 Co's (Other States)	58,088,020.23	61,811,069.45	2,711,477.94	1,404,469.18
26 Foreign Companies	30,751,466.23	27,244,978.06	1,096,442.94	729,292.54
Totals .....	\$90,349,868.46	\$91,391,078.35	\$ 3,892,359.09	\$ 2,146,054.32

RECAPITULATION OF PREMIUMS RECEIVED BY ALL COMPANIES.

	Premiums Collected.
Fire Companies .....	\$1,996,300.48
Life Companies .....	2,648,819.32
Assessment Life Companies .....	25,207.73
Industrial Insurance .....	75,849.78
Miscellaneous Companies, including Fidelity, Casualty, Acci- dent, Surety, Etc. ....	686,129.84
Total .....	\$5,432,307.15
Total Premiums Received 1913 .....	\$5,432,307.15
Total Premiums Received 1912 .....	4,903,542.63
Increase over 1912 .....	\$ 528,764.52

TABLE NO. 53—BANKING STATISTICS—AGGREGATE RESOURCES AND LIABILITIES OF THE STATE, PRIVATE AND NATIONAL BANKS OF MONTANA, SEPTEMBER 12, 1914.

(Compiled from Figures Furnished by the State Examiner.)  
RESOURCES

	State	Private	National	Total
Loans and discounts...	\$33,916,477.92	\$ 5,364,539.08	\$30,800,819.19	\$ 70,081,836.19
Overdrafts.....	444,825.26	466,428.15	197,154.90	1,108,408.31
Bonds and warrants...	2,066,692.93	807,595.33	7,353,053.59	10,227,341.85
Real estate, furniture...	2,558,319.12	931,482.07	1,803,950.53	5,293,751.72
Gold, silver, currency..	3,702,956.16	737,786.36	3,827,055.55	8,267,798.07
Due from banks.....	7,404,154.63	1,080,865.96	9,139,748.91	17,624,769.50
Checks, cash items.....	309,296.80	36,361.09	1,024,626.46	1,370,284.35
Other resources.....	88,538.66	13,236.98	163,470.05	265,245.69
Total resources.....	\$50,491,261.48	\$ 9,438,295.02	\$54,309,879.18	\$114,239,435.68

## LIABILITIES

Capital stock.....	\$ 7,965,000.00	\$ 1,092,100.00	\$ 5,370,000.00	\$ 14,427,100.00
Surplus.....	1,876,918.93	52,000.00	2,687,750.00	4,616,668.93
Undivided profits.....	1,022,598.55	63,256.71	1,337,995.15	2,423,850.41
Due to banks.....	2,124,461.93	196,982.35	2,611,398.06	4,932,842.34
Deposits, checking.....	22,742,288.57	4,953,959.96	37,291,948.74	64,988,197.27
Deposits, savings.....	13,108,515.07	2,912,954.97	574,914.68	16,596,384.72
U. S. deposits.....	.....	.....	710,280.52	710,280.52
Bills payable.....	1,646,183.68	166,607.11	458,716.14	2,271,506.93
Other liabilities .....	5,294.75	433.92	49,285.89	55,014.56
Circulation.....	.....	.....	3,217,590.00	3,217,590.00
Total liabilities ...	\$50,491,261.48	\$ 9,438,295.02	\$54,309,879.18	\$114,239,435.68

TABLE NO. 54—BUILDING PERMITS, COMPILED FROM BLANK FORMS OF INQUIRY RECEIVED FROM CITY CLERKS.

Cities and Towns	1912				1913			
	No. of building permits	Estimated amount of building	Estimated amount of street and municipal improvements	Total improvements for year 1912	No. of building permits	Estimated amount of building	Estimated amount of street and municipal improvements	Total improvements for year 1913
Anaconda .....	29	\$ 75,000	\$ 1,245	\$ 76,245	51	\$ 160,000	\$ 885	\$ 160,885
Butte .....	202	628,101	96,646	724,747	329	844,622	268,358	1,112,980
Billings .....						1,253,000	185,000	1,438,000
Belgrade .....		25,000				15,000		
Bear Creek .....		11,000	125	11,125		6,000	6,725	12,725
Bozeman .....	62	80,410	30,000	110,410	39	146,709	130,300	276,704
Conrad .....	3	31,000	10,500	41,500	4	38,000	60,000	98,000
Choteau .....					44	137,000	2,685	139,685
Cutbank .....	6	25,000	300	25,300	10	60,000	400	60,400
Chinook .....			100,000				110,000	
Deer Lodge .....	6	19,635	10,000	29,635	6	44,000	8,000	52,000
Fromberg .....	3	15,000		15,000	5	9,000	2,500	11,500
Ft. Benton .....			6,625	6,625			8,371	8,371
Great Falls .....	225	635,270	170,561	805,831	461	1,613,521	300,364	1,913,885
Glendive .....		200,000	140,000	340,000		30,000	25,000	55,000
Harlem .....		5,000	250	5,250		115,000	1,000	16,000
Havre .....					42	201,725	80,000	281,725
Harlowton .....	2	4,000	500	4,500	12	50,000	1,000	51,000
Hamilton .....			6,030	6,030			51,195	51,195
Kallispell .....	14	24,875	60,042	84,917	38	62,000	18,708	80,708
Libby .....	35	41,448	15,000	56,448	60	38,742	5,000	43,742
Livingston .....						100,000	23,335	123,335
Lewistown .....	100	200,000	85,000	285,000	150	400,000	125,000	525,000
Laurel .....	23	18,400	9,000	27,400	20	16,500	550	17,050
Moore .....	3	21,000	1,000	22,000	7	2,650	1,100	3,650
Missoula .....	64	86,186		86,186	72	147,670		147,670
Malta .....	2	8,000		8,000	12	8,500	33,000	41,500
Miles City .....	74	150,000	59,780	209,780	101	250,000	47,300	297,000
Manhattan .....	20	65,000	45,000	111,000	15	30,000	10,000	40,000
Phillipsburg .....			7,000	7,000	3	5,000	13,000	18,000
Red Lodge .....	40	55,000	20,000	75,000	82	120,000	50,000	170,000
Shelby .....	3	23,000	40,300	63,300	14	15,000	1,600	16,600
Sidney .....					115	250,000	7,000	257,000
Stanford .....	12	4,000	500	4,500	2	500		500
Terry .....	3	3,500	300	3,800	10	4,550	3,800	8,350
Twin Bridges .....	4	15,500	1,000	16,500	5	8,000	17,500	25,500
Wibaux .....	6	120,000	1,000	121,000			3,000	3,000
Whitehall .....	2	16,000	1,200	17,200	7	63,000	1,200	64,200
Total .....	934	\$2,606,325	\$918,904	\$3,406,629	1716	\$6,245,689	\$1,602,276	\$8,042,135

TABLE NO.55—GRAIN ELEVATORS IN MONTANA.

Location	No.	Capacity Bushels	Location	No.	Capacity Bushels
Big Horn			Fergus		
Hardin	3	110,000	Merino	1	30,000
Blaine			Dover	2	60,000
Chinook	2	60,000	Stanford	3	90,000
Dodson	3	90,000	Windham	2	60,000
Harlem	2	60,000	Benchmark	3	90,000
Savoy	1	30,000	Moccasin	2	60,000
Wagner	1	30,000	Mendon	1	30,000
Yantic	1	25,000	Buffalo	2	60,000
Zurich	1	30,000	Hobson	2	60,000
Broadwater			Hauck	1	20,000
Townsend	2	60,000	Denton	3	30,000
Toston	1	15,000	Hoosac	2	55,000
Cascade			Danvers	2	55,000
Belt	1	30,000	Acushmet	1	30,000
Cascade	1	30,000	Brooks	1	25,000
Geyser	3	85,000	Hilger	1	25,000
Great Falls	1	30,000	Winifred	2	50,000
Monarch	1	25,000	Suffolk	1	25,000
Raynesford	1	30,000	Forest Grove	1	25,000
Spion Kop	1	30,000	Grass Range	2	50,000
Stockett	1	25,000	Arrow Creek	2	55,000
Vaughn	1	30,000	Coffee Creek	2	55,000
Wayne	1	30,000	Roy	2	55,000
Slims	1	30,000	Lewistown	4	130,000
Ulm	1	25,000	Straw	2	60,000
Fife	1	30,000	Garneil	1	30,000
Portage	1	30,000	Glengarry	2	100,000
Swift	1	30,000	Moore	3	165,000
Chouteau			Siple	1	125,000
Big Sandy	2	60,000	Kingston	1	25,000
Virgelle	1	30,000	Kolin	1	25,000
Fort Benton	3	62,000	Rosfork	1	25,000
Carter	3	90,000	Flathead		
Westmore	1	15,000	Kalspell	4	490,000
Highwood	2	55,000	Columbia Falls	1	30,000
Geraldine	2	55,000	Polson	3	100,000
Shonkin	1	30,000	Gallatin		
Square Butte	2	55,000	Bozeman	5	610,000
Flowerree	1	25,000	Amsterdam	1	25,000
Carbon			Manhattan	3	500,000
Red Lodge	1	30,000	Belgrade	7	860,000
Roberts	1	10,000	Three Forks	2	60,000
Fromberg	1	10,000	Maudlow	1	40,000
Custer			Willow Creek	2	60,000
Fallon	2	62,000	Salesville	1	50,000
Terry	2	50,000	Greenwood	1	50,000
Miles City	1	40,000	Granite		
Ismay	2	55,000	Drummond	1	30,000
Mildred	2	60,000	Phillipsburg	1	25,000
Dawson			Hall	1	25,000
Glendive	3	120,000	Ravenna	1	25,000
Marsh	1	40,000	Hill		
Stipek	3	70,000	Havre	2	60,000
Intake	3	65,000	Fresno	2	60,000
Fallon			Kremlin	2	60,000
Baker	4	140,000	Gildford	2	60,000
Plevna	3	65,000	Hingham	2	60,000
Westmore	1	20,000	Rudyard	3	90,000
Kingsmont	1	20,000	Inverness	2	60,000
			Joplin	2	60,000
			Chester	2	60,000
			Tiber	1	30,000
			Lothair	1	30,000
			Box Elder	2	60,000
			Xenia	1	15,000

TABLE NO. 55 (CONTINUED). GRAIN ELEVATORS IN MONTANA.

Location	No.	Capacity Bushels	Location	No.	Capacity Bushels
Lewis & Clark			Sheridan (Continued)		
Gilman .....	1	25,500	Poplar .....	2	60,000
Madison			Wolf Point .....	3	90,000
Twin Bridges .....	2	35,000	McCabe .....	3	90,000
Harrison .....	2	45,000	Froid .....	4	120,000
Anceny .....	1	35,000	Homestead .....	3	90,000
Meagher			Medicine Lake .....	4	120,000
White Sul. Spr. ....	1	25,000	Reserve .....	2	60,000
Shawmut .....	1	30,000	Antelope .....	4	120,000
Harlowton .....	1	200,000	Plentywood .....	3	90,000
Judith Gap .....	2	55,000	Archer .....	1	30,000
Oxford .....	3	90,000	Redstone .....	2	60,000
Nihill .....	1	30,000	Navajo .....	2	60,000
Hedgesville .....	1	30,000	Flaxville .....	4	115,000
Oka .....	1	25,000	Boyer .....	2	60,000
Two Dot .....	1	30,000	Scobey .....	5	140,000
Missoula			Dooley .....	4	105,000
Missoula .....	2	135,000	Outlook .....	5	140,000
Arlee .....	2	50,000	Ranous .....	1	25,000
Ravalli .....	2	70,000	Raymond .....	2	55,000
Dixon .....	1	8,000	Westby .....	2	45,000
Musselshell			Whitetail .....	3	35,000
Melstone .....	2	45,000	Comer .....	1	25,000
Roundup .....	1	30,000			
Ryegate .....	2	51,000	Stillwater		
Belmont .....	1	30,000	Park City .....	2	42,000
Franklin .....	3	90,000	Columbus .....	1	30,000
Lavina .....	1	30,000	Reedpoint .....	1	10,000
Park			Sweet Grass		
Livingston .....	1	75,000	Greycliff .....	1	15,000
Clyde Park .....	3	70,000	Big Timber .....	1	40,000
Wilsall .....	3	60,000	Teton		
Shields .....	1	8,000	Cut Bank .....	2	60,000
Powell			Dutton .....	2	60,000
Deer Lodge .....	1	35,000	Brady .....	2	60,000
Ravalli			Conrad .....	5	140,000
Victor .....	1	50,000	Choteau .....	2	60,000
Hamilton .....	1	50,000	Paris .....	2	50,000
Richland			Bole .....	1	30,000
Riverview .....	1	40,000	Bynum .....	3	90,000
Savage .....	3	100,000	Collins .....	2	52,000
Crane .....	1	40,000	Lamington .....	1	30,000
Sidney .....	4	137,500	Manson .....	1	27,500
Fairview .....	2	50,000	Valier .....	2	59,500
Rosebud			Williams .....	1	27,500
Forsyth .....	2	50,000	Toole		
Rosebud .....	1	15,000	Dunkirk .....	2	60,000
Cartersville .....	1	25,000	Shelby .....	1	30,000
Sumatra .....	1	25,000	Sweet Grass .....	1	30,000
Sanders			Galata .....	2	60,000
Plains .....	1	10,000	Devon .....	1	30,000
Sheridan			Bolter .....	1	30,000
Mondak .....	2	60,000	Sunburst .....	1	25,000
Lakeside .....	1	30,000	Valley		
Bainville .....	2	60,000	Oswego .....	2	60,000
Lanark .....	1	30,000	Frazer .....	1	30,000
Culbertson .....	4	105,000	Wiota .....	1	30,000
Brockton .....	2	60,000	Nashua .....	3	85,000
			Whately .....	1	30,000
			Glasgow .....	2	60,000
			Tampico .....	1	30,000
			Vandalla .....	1	30,000

TABLE NO. 55 (CONTINUED). GRAIN ELEVATORS IN MONTANA.

Location	No.	Capacity Bushels	Location	No.	Capacity Bushels
Hinsdale.....	1	30,000	Yellowstone		
Beaverton .....	2	40,000	Huntley .....	1	30,000
Saco .....	4	95,000	Billings .....	1	130,000
Strater .....	2	60,000	Laurel .....	2	55,000
Malta .....	2	60,000	Broadview .....	3	90,000
Wibaux			Comanche .....	1	30,000
Wibaux .....	6	187,000	Acton .....	1	30,000
Hodges .....	1	30,000			
Yates .....	2	30,000	Total .....	418	14,489,500
Burns .....	1	15,000			

TABLE NO. 56—REVENUE FROM LICENSES—REVENUE FROM LICENSES  
BY COUNTY

Counties	Billard Tables	Bottling Works	Bowling Alleys	Brewers	Laundries	Cigarette Selling .....	Intelligence Offices	Liquor Selling, Retail	Liquor Selling, Wholesale
Beaverhead .....	\$ 273.75	\$...	\$ 10	\$ 90	\$...	\$...	\$...	\$ 15,543.00	\$ 150
Broadwater .....	82.50	...	...	65	...	140	...	5,885.00	...
Blaine .....	138.75	...	10	...	...	...	...	5,325.00	...
Carbon .....	...	...	...	45	...	...	...	22,055.00	...
Cascade .....	...	180	...	300	...	790	...	60,109.00	...
Chouteau .....	...	...	...	10	...	...	...	6,378.94	...
Custer .....	307.50	50	70	...	80	480	40	23,100.00	150
Dawson .....	...	...	...	40	350	...	...	17,183.00	165
Deer Lodge .....	...	...	...	180	40	320	...	28,215.00	...
Fergus .....	48.75	50	35	90	...	580	...	24,850.00	528
Flathead .....	...	...	...	90	...	230	...	20,526.00	...
Gallatin .....	...	...	50	90	140	340	20	16,281.00	...
Granite .....	...	...	...	65	...	80	...	7,150.00	...
Hill .....	...	...	...	30	...	...	...	13,365.00	...
Jefferson .....	...	...	...	...	...	...	...	13,310.00	...
Lewis & Clark .....	348.75	120	...	325	...	1190	120	38,951.00	1320
Lincoln .....	15.00	...	...	...	...	30	...	6,600.00	...
Madison .....	30.00	...	...	60	...	...	...	11,825.00	...
Meagher .....	303.75	...	...	...	...	10	...	9,680.00	...
Missoula .....	75.00	60	15	660	...	600	80	43,570.00	3300
Musselshell .....	376.25	75	20	...	...	342	10	14,356.00	...
Park .....	90.00	75	10	...	...	280	...	17,545.00	75
Powell .....	307.50	...	40	60	40	290	...	9,735.00	...
Ravalli .....	26.25	...	5	...	...	770	...	10,241.00	...
Rosebud .....	...	...	...	...	...	10	...	5,577.00	150
Sanders .....	...	...	...	...	...	...	...	6,215.00	...
Silver Bow .....	...	360	40	780	720	2660	220	144,177.00	...
Sweet Grass .....	...	...	...	...	...	120	...	4,389.00	600
Teton .....	573.75	...	15	...	...	10	...	20,350.00	...
Valley .....	...	...	...	...	30	...	...	22,880.00	1435
Yellowstone .....	1292.50	...	30	300	60	1040	60	30,690.00	75
Total .....	\$4290.00	\$970	\$350	\$3200	\$1190	\$10662	\$550	\$677,056.94	\$7948

FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1912, AS REPORTED  
TREASURERS

Pawnbrokers & Peddlers	Power & Light Co.	Shows & Circuses	Shooting Galleries	Telegraph & Telephone	Theaters	Water Companies	All Others	Total
37.50	\$ 50	\$ 174.00	\$ 30	\$ 100.00	\$ 125.00	\$ ..	\$ 90.00	\$ 16,635.75
..	..	..	..	..	..	..	185.00	6,395.00
..	..	70.00	..	100.00	20.00	..	..	6,493.75
50.00	..	570.00	..	900.00	..	100	242.50	22,512.50
..	..	50.00	..	..	..	..	780.75	63,779.75
12.50	..	10.00	..	..	225.00	..	55.00	6,493.94
25.00	..	180.00	..	100.00	25.00	..	50.00	24,575.00
25.00	..	165.00	15	400.00	300.00	400	401.25	18,469.25
..	..	31.00	..	..	350.00	..	1,103.75	31,163.75
..	..	630.00	15	300.00	..	250	625.00	27,187.75
..	..	232.50	..	400.00	237.50	50	857.50	22,898.50
..	..	142.00	15	100.00	..	..	775.00	18,616.00
..	..	36.00	..	100.00	175.00	..	265.00	7,817.00
62.50	..	46.00	..	..	..	..	121.25	13,827.25
385.00	..	265.00	60	839.00	400.00	..	300.00	13,718.50
..	50	15.00	..	..	14.00	100	760.00	45,083.75
..	..	161.50	..	..	..	100	225.00	7,049.00
..	..	..	..	..	..	..	225.00	12,401.50
..	..	..	..	..	..	..	..	9,993.75
37.50	..	270.00	..	800.00	300.00	..	931.35	50,698.85
..	..	..	15	..	200.00	100	65.00	15,559.25
12.50	200	140.00	15	400.00	200.00	200	390.00	19,632.50
12.50	..	..	..	200.00	107.00	50	..	10,842.00
..	..	145.00	..	183.35	417.00	100	692.50	12,580.10
12.50	..	15.00	..	100.00	100.20	..	226.25	6,190.95
..	..	..	110	..	..	100	335.00	6,760.00
967.50	400	355.00	..	1733.33	1100.00	500	2,168.75	156,181.58
50.00	..	10.00	..	200.00	..	..	59.50	5,428.50
..	..	..	..	..	300.00	50	180.00	21,478.75
50.00	..	..	75	..	..	..	297.00	24,767.50
220.00	200	280.00	..	1200.00	500.00	400	12.50	36,360.00
\$1960.00	\$900	\$3993.00	\$350	\$8155.68	\$5095.70	\$2500	\$12,419.85	\$741,591.67

TABLE NO. 56 (CONTINUED)—REVENUES FROM LICENSES—REVENUES  
1913, AS REPORTED

Counties	Billiard Tables	Bowling Alleys	Bottling Works	Brewers	Laundries	Cigarette Selling	Intelligence Offices	Liquor Selling, Retail
Beaverhead	\$ 157.50	\$	\$	\$ 90	\$	\$	\$	\$ 15,147.00
Broadwater	191.25			60		20		6,160.00
Big Horn	165.00						10	6,380.00
Blaine	247.00			20		10		8,250.00
Carbon	26.25			90		180		20,570.00
Cascade	211.90		240	600		775		61,644.00
Chouteau	71.25							6,250.00
Custer	442.50	80	50		30	760	40	23,650.00
Dawson	326.25					360		18,149.00
Deer Lodge	337.50			180	10	450		26,180.00
Fallon								
Fergus	577.50	20	25	180		910		30,646.00
Flathead	810.00			90		320		19,965.00
Gallatin		45	120	225	30	370	10	16,346.00
Granite	243.75			60		360		6,885.00
Hill	162.50	20		45	20			17,604.00
Jefferson	210.00							12,860.00
Lewis and Clark	362.75		120	375		1,310	130	38,368.00
Lincoln	236.25					120		6,435.00
Madison	52.50			60				11,605.00
Meagher	341.50					80		9,735.00
Missoula	1,012.50		120	990		990	140	46,035.00
Musselshell	423.75	45	50			420		15,466.00
Park	576.25	35				460		18,260.00
Powell	352.50	20		60	10	520		10,505.00
Ravalli	611.25				10	580		9,548.00
Rosebud	191.25							6,831.00
Sanders	482.00					10		6,160.00
Sheridan	78.75							9,075.00
Silver Bow	1,005.00	40	360	660	150	2,710	250	149,688.00
Stillwater	202.50	20						2,875.00
Sweet Grass	96.20					30		4,224.00
Teton	753.25	30						21,637.00
Valley	317.50				30	100	10	15,752.00
Yellowstone	1,215.00	40		300	20	1,600	80	29,810.00
Total	\$12,490.85	\$395	\$1085	\$4085	\$310	\$13,445	\$670	\$703,194.00

FROM LICENSES FOR THE FISCAL YEAR ENDING NOVEMBER 30,  
BY THE COUNTY TREASURER.

Liquor Selling, Wholesale	Pawnbrokers & Peddlers	Power & Light Co.	Shows and Circuses	Shooting Galleries	Telegraph & Telephone	Theaters	Water Companies	All Others	Total
\$1056	\$ 50.00	\$ 50	\$ 25	\$ 15	\$ 100	\$ 75.00	\$	\$ 20.00	\$ 16,785.50
	12.50							70.00	6,513.75
			20						1,075.00
	25.00		29		300	14.00			8,541.00
1650	150.00	200	175		500	75.00		200.00	21,295.25
		50	20		100			20.00	66,920.90
75	12.50		15	30	200	250.00			6,511.25
	24.50	100	270					50.00	25,635.00
1650	62.50	400	70		400	300.00	400	390.00	19,279.75
									30,830.00
603	37.50	100	175	45	100	350.00		30.00	33,799.00
			50	15	300	250.00	250	15.00	22,065.00
150		350	155	15	700	300.00	50	762.15	19,628.15
	50	14			100	50.00		30.00	7,792.75
	60.00	150	60	15		100.00		12.50	18,249.00
	72.50								13,142.50
1320	577.50	600	250	45	800	550.00		234.00	45,042.25
	12.50	50	15	15	100	16.00	100	10.00	7,109.75
			56				100	214.15	12,087.65
			10						10,166.50
	125.00	800	160		400	300.00	800	50.00	51,922.50
150	62.50	50		30	100	200.00	100	20.00	17,117.25
600	62.50	100	165		200	300.00	200		20,958.75
	12.50		71		200	150.00	50		11,951.00
528		50	540		200	180.00	100	15.00	12,862.30
150	25.00	50	30	15	100	50.10			7,442.35
			31				150	10.00	6,843.00
300	37.50								9,491.25
150	1330.00	800	445		3400	525.00	500	860.00	162,873.00
			25			18.00			3,140.50
225	75.00		10		200				4,860.20
						150.00		140.00	22,710.25
770	12.50		128	15				10.00	17,145.00
75	275.00	650	515	15	800	425.00	400	75.00	36,295.00
\$9452	\$3114.50	\$4600	\$3529	\$270	\$9300	\$5203.10	\$3200	\$3237.80	\$777,581.30

TABLE NO. 57—MONTANA SALOONS

Number of places, by counties, where liquor is sold, as reported by County Sheriffs to the State Examiner, July, 1914.

County	No.	County	No.
Beaverhead .....	37	*Mineral .....	..
Big Horn .....	4	Missoula .....	98
Blaine .....	27	Musselshell .....	62
Broadwater .....	16	Park .....	41
Carbon .....	42	Powell .....	27
Cascade .....	116	Ravalli .....	15
Chouteau .....	26	Richland .....	16
Custer .....	84	Rosebud .....	18
Dawson .....	31	Sanders .....	15
Deer Lodge .....	53	Sheridan .....	66
Fallon .....	24	Silver Bow .....	259
Fergus .....	91	Stillwater .....	9
Flathead .....	39	Sweet Grass .....	15
Gallatin .....	36	Teton .....	37
Granite .....	20	Toole .....	22
Hill .....	40	Valley .....	28
Jefferson .....	31	*Wibaux .....	..
Lewis and Clark .....	67	Yellowstone .....	46
Lincoln .....	17		
Madison .....	28	Total .....	1629
Meagher .....	26		

\*Saloons in Mineral and Wibaux counties are included in the counties from which they were formed. Both Mineral and Wibaux counties were organized August 1, 1914. Mineral county was taken wholly from Missoula county, and Wibaux county from portions of Dawson, Richland and Fallon counties.

TABLE NO. 58—SHIPMENTS OF CATTLE OUT OF THE STATE, STRAYS RECOVERED, INSPECTIONS AND NUMBER OF ARRESTS MADE FOR VIOLATING THE STOCK LAWS IN MONTANA, BY YEARS, SINCE 1885.

(Compiled by the State Board of Stock Commissioners.)

Year	Cattle Output	Horses Output	Strays Recovered	Stray Horses Recovered	No. Insp's.	No. Arrests
1885	70,089		1,035		8	19
1886	119,620		1,730		8	43
1887	82,134		3,160		9	13
1888	167,602		3,790		5	6
1889	123,880		3,424		5	20
1890	174,035		3,991		9	21
1891	250,000		13,746		10	14
1892	203,000		11,110		13	4
1893	279,158		17,565		14	13
1894	302,655		19,885		12	23
1895	206,460		24,245		16	29
1896	254,864		20,275		16	52
1897	252,162		19,104		15	81
1898	232,225		16,058		15	72
1899	203,499		10,775		21	60
1900	160,055		11,649		21	65
1901	151,986		5,843	51	23	91
1902	230,000		13,841	129	23	98
1903	210,573		11,272	125	20	109
1904	288,775		21,316	1066	33	121
1905	267,966		34,820	915	34	129
1906	276,722		22,390	632	26	86
1907	214,642		15,558	208	7	65
1908	241,320		12,176	206	7	63
1909	255,178		11,219	114	7	63
1910	243,662		9,350	108	7	165
1911	205,873	26,676	11,000		14	192
1912	188,675	13,514			18	100
1913	179,886	27,682			23	124

TABLE NO. 59—LIVESTOCK IMPORTATIONS DURING YEAR 1913  
(Compiled by State Veterinarian.)

Note: Swine Importations included in column one, all examined, found free of disease.

Origin	Mallein-Tuber- cullin Tested			Health Inspection Only			Number Swine
	Number Imports	Number Horses	Number Cattle	Number Imports	Number Horses	Number Cattle	
Arizona .....	..	..	..	21	..	2055	..
Arkansas .....	5	35	3	..	..	..	15
California .....	5	17	8	..	..	..	..
Colorado .....	24	164	47	..	..	..	11
Dominion of Canada .....	112	361	66	7	25	..	..
Idaho .....	74	970	52	1	..	225	14
Illinois .....	139	533	260	..	..	..	39
Indiana .....	15	21	24	..	..	..	2
Iowa .....	375	1573	1022	..	..	..	149
Kansas .....	120	577	265	..	..	..	21
Kentucky .....	7	5	21	..	..	..	..
Massachusetts .....	1	..	1	..	..	..	..
Michigan .....	14	26	7	..	..	..	..
Minnesota .....	381	1394	1776	105	56	8396	104
Mississippi .....	1	2	..	..	..	..	..
Missouri .....	123	593	580	3	144	20	25
New Mexico .....	3	56	1	1	..	1003	..
Nebraska .....	180	911	550	5	99	128	52
New York .....	5	8	55	..	..	..	..
North Carolina .....	1	2	3	..	..	..	..
North Dakota .....	650	3073	1471	23	1056	1620	272
Ohio .....	6	7	6	..	..	..	..
Oklahoma .....	41	237	22	6	117	..	..
Oregon .....	32	487	46	5	72	1	126
Pennsylvania .....	1	3	..	..	..	..	..
South Dakota .....	307	1822	1015	8	1297	..	832
Tennessee .....	8	..	274	..	..	..	..
Texas .....	4	114	5	9	..	7250	..
Utah .....	3	89	..	4	..	2250	..
Virginia .....	1	4	2	..	..	..	..
Washington .....	145	1475	110	4	58	30	29
West Virginia .....	3	5	6	..	..	..	..
Wisconsin .....	240	771	1266	..	..	..	43
Wyoming .....	36	456	26	36	1455	907	436
Totals .....	3,067	15,771	8,994	219	4,397	23,891	2,451
Admitted clinically .....	219	4,397	23,891	..	..	..	..
Totals .....	3,286	20,168	32,885	..	..	..	2,451
Imports, 1912 .....	1,529	7,816	4,482	..	..	..	393
Increase over 1912 .....	1,757	12,352	28,403	..	..	..	2058

TABLE NO. 60—FIRE LOSSES IN MONTANA, JAN. 1, 1913, TO APRIL 1, 1914.

(Compiled by the State Fire Marshal)

County	No.	Value	Loss	Insurance
Beaverhead .....	12	\$ 95,900	\$ 26,953	\$ 29,250
Blaine .....	2	65,000	95	46,000
Broadwater .....	2	7,500	650	2,500
Big Horn .....	4	4,200	1,000	2,250
Carbon .....	13	85,550	37,100	46,500
Cascade .....	40	1,209,665	22,703	478,960
Chouteau .....	32	260,895	48,480	147,675
Custer .....	6	30,275	2,395	17,950
Dawson .....	22	89,200	9,345	32,050
Deer Lodge .....	23	336,060	31,915	106,950
Fergus .....	33	93,975	54,080	47,150
Flathead .....	22	138,200	61,792	89,300
Gallatin .....	7	12,000	315	1,000
Granite .....	9	103,500	26,990	49,200
Hill .....	21	133,975	90,995	56,083
Jefferson .....	20	205,830	16,630	85,430
Lewis and Clark .....	4	39,530	4,460	25,900
Lincoln .....	2	38,000	7,130	21,000
Madison .....	2	2,125	2,125	700
Meagher .....	46	383,737	202,853	235,620
Missoula .....	6	19,300	5,770	11,900
Musselshell .....	30	338,591	142,874	195,000
Park .....	1	18,000	1,000	6,750
Powell .....	3	5,250	2,138	5,800
Ravalli .....	1	78,550	44,815	48,258
Rosebud .....	13	3,637,230	122,655	3,273,575
Sanders .....	1	1,300	350	700
Silver Bow .....	2	725	535	950
Stillwater .....	2	1,100	975	315
Sweetgrass .....	15	69,800	37,450	43,275
Sheridan .....	19	67,625	34,610	19,600
Teton .....	8	31,000	24,055	21,100
Valley .....				
Yellowstone .....				
Total .....	552	\$7,603,088	\$1,065,233	\$4,247,191

TABLE NO. 61—JAIL INCARCERATIONS—INCARCERATIONS IN THE COUNTY  
JAILS DURING 1912, AS REPORTED BY SHERIFFS

County	White		Colored		Indians and Half-Breeds		Chinese and Japanese	Total confined during year	Total No. days all were confined	Average No. days each was confined	Misdemeanors	Held for Felonies	Witnesses	Insane held tempo.	Pct. of Incar for each county of total in the state	
	Males	Females	Total	Females.	Males	Total										Males
*Beaverhead . .	226	5	231	2	2	2	2	237	3,774	16.00	166	62	...	9	3.12	
Broadwater . .	27	..	27	..	..	..	..	27	959	35.50	8	14	3	2	.65	
*Blaine . . . .	47	1	48	..	..	..	1	49	337	7.08	20	24	1	4	.34	
Carbon . . . .	146	..	146	..	..	..	..	146	1,518	10.50	102	33	2	9	1.90	
Cascade . . . .	330	22	352	11	..	11	4	367	6,973	19.00	125	..	..	25	4.81	
*Chouteau....	68	..	68	1	..	1	4	74	2,516	34.00	45	19	1	9	.98	
Custer . . . .	105	1	106	5	1	6	1	114	2,919	25.60	84	22	..	8	1.48	
Dawson . . . .	66	6	72	1	..	1	..	73	1,380	18.87	43	23	1	6	.95	
Deer Lodge . .	518	10	528	5	2	7	1	526	5,972	11.00	472	22	20	22	7.05	
Fergus . . . .	230	11	241	2	..	2	2	246	3,060	12.50	137	88	10	11	3.22	
Flathead . . .	114	9	123	..	..	..	8	133	3,287	24.70	58	56	19	..	1.75	
Gallatin . . .	149	5	154	..	2	..	..	158	3,919	24.80	135	14	3	6	2.08	
*Granite . . . .	28	1	29	1	..	1	..	30	1,234	41.15	25	2	1	2	.39	
Hill . . . . .	35	..	35	2	..	2	5	42	542	12.90	32	8	1	1	.55	
*Jefferson . . .	48	2	50	..	..	..	..	50	984	19.65	18	23	..	8	.65	
*Lewis & C. . .	306	22	328	28	21	49	19	400	4,632	11.58	343	19	11	27	5.20	
Lincoln . . . .	28	..	28	..	..	..	1	29	617	21.33	15	11	..	3	.38	
*Madison . . .	17	..	17	..	..	..	..	17	417	24.53	3	10	..	4	.22	
Meagher . . . .	27	4	31	..	..	1	1	32	2,080	65.00	28	1	..	3	.42	
*Missoula . . .	750	52	802	50	..	50	25	877	7,824	9.00	775	30	12	60	11.35	
Musselshell . .	61	1	62	1	..	1	..	63	1,640	26.05	41	16	..	6	.82	
Park . . . . .	171	23	194	..	..	..	..	194	3,941	20.30	71	100	9	14	2.55	
*Powell . . . .	632	2	634	2	..	2	..	639	3,913	6.80	611	17	..	11	8.30	
Ravalli . . . .	52	4	56	2	..	2	1	61	815	13.33	29	17	1	14	.80	
*Rosebud . . .	55	..	55	..	..	..	3	58	1,254	21.00	30	25	..	3	.76	
Sanders . . . .	38	1	39	2	..	2	3	44	948	21.00	18	21	1	4	.58	
*Silver Bow . .	2097	84	2181	89	8	97	6	2296	33,000	15.00	2066	200	10	20	28.64	
*Sweet Grass . .	25	..	25	..	..	..	..	25	867	34.66	17	8	..	..	.33	
*Teton . . . . .	67	1	68	2	..	2	..	71	2,188	30.50	35	28	..	8	.93	
Valley . . . . .	405	2	407	1	..	1	3	412	5,251	12.75	385	25	..	2	5.35	
Yellowstone . .	228	12	240	11	1	12	4	262	9,516	36.50	160	60	8	34	3.45	
Total . . . . .	7096	281	7377	218	35	253	94	38	7752	118,277	22.32	6097	998	114	335	100.00

\*Includes city prisoners confined in county jail.

TABLE NO. 61—(CONTINUED)—JAIL INCARCERATIONS—INCARCERATIONS IN THE COUNTY JAILS DURING 1913, AS REPORTED BY SHERIFFS.

County	White			Colored			Indians and Half-Breeds			Total confined during year	Total No. days all were confined	Average No. days each was confined	Misdemeanors	Held for felonies	Witnesses	Insane held tempo.	Pct of incur. for each county of total in the state	
	Males	Females	Total	Males	Females	Total	Males	Females	Total									
Beaverhead	371	8	379	1	1	2				7	388	5,551	14.33	6	4		4.40	
Boadwater	30	1	31							2	33	196	5.09	24	6	3	.38	
Bighorn	2		2					1		1	4	341	85.25	2	2		.04	
Blairstown	62	1	63					4		4	67	1,437	23.11	31	32	4	.77	
Carbon	48		48								48	673	14.00	33	12	3	.55	
Cascade	574	30	604	16	2	18	17	2	19	2	643	12,859	20.00	442	144	22	34	7.35
Chouteau	209		209	2	1	3				212	4,165	19.55	156	36	10	10	2.43	
Custer	86	5	91	7	1	8	3		3	102	3,484	34.18	66	32		4	1.14	
DeWitt	108	1	109	2		2				111	3,219	29.00	34	64	1	12	1.24	
Deer Lodge	356	10	366	22	15	37	1		1	404	4,946	12.25	382	11	1	10	4.65	
Fergus	352	16	368	5	2	7	2		2	377	7,082	18.50	272	62	8		4.40	
Glacier	132	9	141	4		4	3	1	4	1	150	3,481	23.20	73	52	3	22	1.71
Golden	112	2	114	2		2				5	121	2,496	20.06	91	19	2	9	1.41
Granite	32	1	33	1		1					34	997	29.33	28	3	1	2	.41
Jefferson	100		100	8		8	2	1	3	111	2,662	24.00	76	12	9	14	1.24	
Johnston	17		17							17	260	15.05	11	5	2		.20	
Kearney & Clark	596		596	27		27	19		19	2	719	9,462	13.06	634	28	23	34	8.10
Lincoln	49	2	51				1		1		52	545	10.48	17	23		12	.59
Madison	46	6	52							52	1,066	20.50	29	15		8	.59	
McPherson	27		27	1		1				28	1,602	58.00	21	3		4	.31	
Missoula	1400	88	1488	20					100	1608	15,372	9.00	1503	75	10	20	18.03	
Musselshell	44	3	47							47	1,811	38.25	33	6		3	.55	
Nevada	146	11	157	1	1	1				159	4,134	26.00	85	60	7	7	1.83	
Nowata	616	4	620	5	1	6			2	631	4,266	6.75	604	16		11	7.21	
Okfuskee	29	4	33				1		1	34	273	8.01	18	11		5	.40	
Rosebud	106	8	114	10		10	2		2	1	127	4,225	33.34	88	24	5	10	1.48
Sanders	100	5	105	4	1	5	3		3		113	1,808	16.00	89	13	3	8	1.32
Silver Bow	1223	40	1263	200	20	220	10	3	13	4	1500	30,000	20.00	1234	72	42	152	17.30
Sheridan	84		84				1		1		85	2,353	28.00	57	26		2	1.00
Stillwater	23		23							1	24	227	9.50	12	11		1	.28
Sweet Grass	17	2	19							2	21	463	22.01	15	4	1	1	.25
Teton	63		63				6		6		69	2,459	44.35	34	28	1	6	.80
Valley	354	4	358	3		3	9	1	10		371	8,543	23.33	325	37	2	7	4.21
Yellowstone	262	13	275	17	3	20	3	2	5	3	303	8,838	25.75	194	79	6	24	3.43
Total	7776	274	8050	358	47	385	188	10	198	33	8765	151,296	....	6724	1027	159	442	....

\*Includes city prisoners confined in county jail.

TABLE NO. 62—PENITENTIARY STATISTICS—STATEMENT SHOWING BY COUNTIES THE OFFENSES FOR WHICH PRISONERS WERE COMMITTED TO THE MONTANA STATE PRISON FOR THE YEAR 1912.

Offense for which committed	Total crimes															
	Teton	Yellowstone	Valley	Sweet Grass	Silver Bow	Sanders	Rosebud	Ravalli	Powell	Park	Musselshell	Missoula	Meagher	Madison	Lincoln	Lewis & Clark
Assault	26	3	1	3	3	10	46	94	2	4	3	8	15	10	29	5
Arson	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Bigamy	89	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Burglary	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Carrying concealed weapons	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Escape from State Prison	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fictitious checks	46	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Forgery	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Grand larceny	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Injuring public jail	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Incest	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Intamous crime against nature	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Killing live stock	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Living with prostitutes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Manslaughter	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Murder	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rape	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Receiving stolen goods	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Robbery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
White slavery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Totals, each county	14	12	7	11	24	15	13	9	6	35	12	11	1	1	2	8
	7	12	9	3	5	10	4	4	14	27	7	365				

TABLE NO. 62 (CONTINUED) PENITENTIARY STATISTICS—STATEMENT SHOWING BY COUNTIES THE OFFENSES FOR WHICH PRISONERS WERE COMMITTED TO THE MONTANA STATE PRISON DURING THE YEAR 1913.

Offense for which committed	Total crimes																
	Teton	Yellowstone	Valley	Stillwater	Sheridan	Sweet Grass	Silver Bow	Sanders	Rosebud	Powell	Park	Missoula	Meagher	Madison	Lincoln	Lewis & Clark	Jefferson
Assault	1	2	1	2	2	3	3	2	2	1	2	2	1	2	1	1	1
Arson	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Bigamy	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Burglary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Deserting a child	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Carrying concealed weapons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Escape from States Prison	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fictitious checks	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Forgery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Grand larceny	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Grave robbery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Incest	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Infamous crime against nature	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Injuring public falls	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Living with prostitutes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Manslaughter	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Murder	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
perjury	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rape	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Receiving stolen goods	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Robbery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
White slavery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Totals, each county	28	32	8	6	32	10	18	13	6	25	15	13	4	4	11	8	404

TABLE NO. 63—NATIONAL GUARD OF MONTANA

Organization	DEPARTMENTS			LINE			OFFICERS			ENLISTED MEN		
General headquarters, Helena	1	1	1	1	1	1	9	13	4	28	8	60
First battalion headquarters, Glendive	1	1	1	1	1	1	13	13	4	28	8	72
Second battalion headquarters, Helena	1	1	1	1	1	1	13	13	4	28	8	72
Band, Valier	1	1	1	1	1	1	15	15	4	28	8	77
Hqs. detachment, Choteau	1	1	1	1	1	1	2	2	1	6	8	79
Company "A," Bozeman	1	1	1	1	1	1	11	11	3	42	58	60
Company "B," Roundup	1	1	1	1	1	1	12	12	3	52	69	72
Company "C," Shelby	1	1	1	1	1	1	11	11	3	55	71	74
Company "D," Valier	1	1	1	1	1	1	12	12	3	56	76	79
Company "E," Miles City	1	1	1	1	1	1	13	13	3	55	72	75
Company "F," KallsPELL	1	1	1	1	1	1	13	13	3	72	89	92
Company "H," KallsPELL	1	1	1	1	1	1	13	13	3	70	87	90
Company "K," Billings	1	1	1	1	1	1	13	13	3	69	86	89
Company "L," Libby	1	1	1	1	1	1	12	12	3	42	59	61
Company "M," Choteau	1	1	1	1	1	1	12	12	3	59	76	79
Totals	1	1	1	1	1	1	135	135	20	533	779	83.3

TABLE NO. 64—REPORT OF THE MONTANA STATE HOSPITAL FOR THE FISCAL YEAR 1913.

Counties from which patients at the Hospital were received and the number of patients from each county.

County	Year Ending November 30, 1913		
	Male	Female	Total
Beaverhead .....	17	3	20
Blaine .....	2	..	2
Broadwater .....	2	1	3
Carbon .....	16	6	222
Cascade .....	47	18	65
Chouteau .....	25	7	32
Custer .....	12	10	22
Dawson .....	17	10	27
Deer Lodge .....	47	20	67
Fallon .....	..	..	..
Fergus .....	21	6	27
Flathead .....	28	7	35
Gallatin .....	26	7	33
Granite .....	5	3	8
Hill .....	3	1	4
Jefferson .....	18	5	23
Lewis & Clark .....	47	35	82
Lincoln .....	3	..	3
Madison .....	18	2	20
Meagher .....	11	2	13
Missoula .....	48	23	71
Musselshell .....	3	1	4
Park .....	11	7	18
Powell .....	10	1	11
Ravalli .....	13	6	19
Rosebud .....	5	3	8
Sanders .....	2	..	2
Sheridan .....	2	..	2
Silver Bow .....	120	35	155
Sweet Grass .....	5	..	5
Teton .....	21	6	27
Toole .....	1	..	1
Valley .....	13	2	15
Yellowstone .....	30	17	47
Penitentiary .....	11	..	11
Total .....	660	244	604

TABLE NO. 64 (CONTINUED)—MOVEMENT OF POPULATION FROM  
DECEMBER 1, 1912, TO NOVEMBER 20, 1913.  
Year Ending November 30, 1913

	Male	Female	Total
Number in hospital beginning fiscal year....	626	228	854
Number admitted during fiscal year .....	234	91	325
Total treated .....	860	319	1179
Discharged recovered .....	62	19	81
Discharged improved .....	48	39	87
Number escaped .....	6	..	6
Number of deaths .....	83	17	100
Number deported .....	1	..	1
Total departure .....	200	75	275
Number returned from escape .....	2	..	2
Number in hospital at close of fiscal year...	660	244	904

TABLE NO. 64 (CONTINUED)—MOVEMENT OF POPULATION FROM DE-  
CEMBER 1, 1913, TO NOVEMBER 30, 1914.  
Year Ending November 30, 1914

	Male	Female	Total
Number in Hospital at beginning of fiscal year.	660	244	904
Number admitted during fiscal year .....	229	103	332
Total treated .....	889	347	1236
Patients discharged recovered .....	53	12	65
Patients discharged improved .....	45	44	89
Deaths .....	90	28	118
Escaped .....	25	..	25
Deported .....	..	1	1
Returned from escape .....	213	85	298
Number in Hospital at the close of Nov. 30, 1914	676	262	938

TABLE NO. 64 (CONTINUED)—REPORT OF THE INSANE HOSPITAL FOR THE FISCAL YEAR 1914.

Counties from which patients at the Hospital were received and the number of patients from each county.

Year Ending November 30, 1914

County	Male	Female	Total
Beaverhead .....	10	1	11
Big Horn .....	1	1	2
Blaine .....	4	2	6
Broadwater .....	2	2	4
Carbon .....	19	4	23
Cascade .....	43	20	63
Chouteau .....	24	7	31
Custer .....	10	8	18
Dawson .....	16	9	25
Deer Lodge .....	53	19	72
Fergus .....	18	9	27
Flathead .....	25	6	31
Gallatin .....	26	7	33
Granite .....	7	2	9
Hill .....	10	6	16
Jefferson .....	18	1	19
Lewis and Clark .....	53	35	88
Lincoln .....	1	1	2
Madison .....	14	4	18
Meagher .....	10	2	12
Missoula .....	52	23	75
Musselshell .....	1	1	2
Park .....	10	7	17
Powell .....	8	1	9
Ravalli .....	10	13	23
Rosebud .....	8	3	11
Richland .....	1	..	1
Sanders .....	3	1	4
Sheridan .....	5	4	9
Stillwater .....	1	1	2
Silver Bow .....	119	38	157
Sweet Grass .....	5	..	5
Teton .....	18	5	23
Toole .....	3	..	3
Valley .....	12	2	14
Yellowstone .....	35	16	51
Fallon .....	2	..	2
Penitentiary .....	15	1	16
Total .....	676	262	938

TABLE NO. 65—STATISTICS OF SHEEP AND WOOL—WOOL PRODUCTS OF THE UNITED STATES, 1913, ACCORDING TO THE LATEST OFFICIAL RETURNS AND ESTIMATES.

States and Territories	Quality	National Association's Estimate Number of Sheep of Shearing Age, April 1, 1913										Average Weight of Fleece, 1913	Wool Washed and Unwashed, 1913	Per Cent of Shrinkage, 1913	Equivalent Quantity of Scoured Wool, 1913	Average Value per Scoured Pound Oct. 1.		Total Value 1913		
																	CENTS			\$
										150,000	6.25	937,500	42	543,750	40	51	39	212,063		
Maine.....	10% fine, 90% medium.....	33,000	6.50	214,500	48	111,543	46	53	40	44,616										
New Hampshire.....	25% fine, 75% medium.....	85,000	6.75	573,750	50	286,875	44	54	40	114,750										
Vermont.....	20% fine, 80% medium.....	23,000	6.25	143,750	42	83,375	42	52	37	50,849										
Massachusetts.....	Medium.....	15,000	6.00	90,000	42	45,000	42	52	37	6,438										
Rhode Island.....	Medium.....	15,000	5.70	82,500	42	49,500	43	53	37	18,348										
Connecticut.....	30% fine, 70% medium.....	550,000	6.50	3,575,000	47	1,894,750	45	52	40	777,903										
New York.....	Medium.....	17,000	5.40	91,800	46	49,572	43	52	38	18,837										
New Jersey.....	60% fine, 40% medium.....	648,000	6.53	4,212,000	48	2,190,240	46	54	44	963,706										
Pennsylvania.....	Medium.....	5,000	5.30	26,500	44	14,840	40	53	36	5,342										
Delaware.....	Medium.....	128,000	5.50	704,000	44	394,240	42	53	36	141,926										
Maryland.....	75% fine, 25% medium.....	575,000	5.50	3,162,500	48	1,644,500	51	56	46	756,470										
West Virginia.....	Medium.....	775,000	4.60	3,565,000	37	2,245,950	43	53	38	853,461										
Kentucky.....	65% fine, 35% medium.....	2,300,000	6.50	14,950,000	50	7,475,000	47	54	48	3,588,000										
Ohio.....	25% fine, 75% medium.....	1,200,000	7.00	8,400,000	49	4,284,000	45	52	41	1,756,440										
Michigan.....	15% fine, 85% medium.....	800,000	6.50	5,200,000	46	2,808,000	44	52	40	1,123,200										
Indiana.....	25% fine, 75% medium.....	650,000	6.50	4,225,000	47	2,339,250	43	51	40	895,700										
Illinois.....	20% fine, 80% medium.....	640,000	6.70	4,288,000	45	2,358,400	40	53	38	896,192										
Wisconsin.....	20% fine, 80% medium.....	440,000	6.75	2,970,000	48	1,544,400	40	50	37	571,428										
Minnesota.....	30% fine, 70% medium.....	820,000	6.75	5,535,000	48	2,878,200	43	54	40	1,151,280										
Iowa.....	15% fine, 85% medium.....	1,050,000	6.75	7,087,500	45	3,898,125	39	53	38	1,481,288										
Missouri.....		11,039,000	6.51	71,727,300	48	37,011,997				\$15,388,234										

Virginia.....	Medium.....	445,000	4.50	2,002,500	36	1,281,600	45	56	39	\$	499,824
North Carolina.....	Medium.....	150,000	3.75	562,500	42	326,250	41	48	38		123,975
South Carolina.....	Medium.....	30,000	3.60	108,000	42	62,640	40	50	38		23,803
Georgia.....	Medium.....	175,000	3.50	612,500	42	355,250	40	53	39		138,548
Florida.....	Medium.....	100,000	3.25	325,000	38	201,500	40	50	38		76,570
Alabama.....	Medium.....	115,000	3.25	373,750	38	231,725	40	50	38		88,056
Mississippi.....	Medium.....	150,000	3.75	562,500	39	343,125	40	50	38		130,388
Louisiana.....	Medium.....	140,000	3.50	490,000	38	303,800	40	50	38		115,444
Arkansas.....	Medium.....	100,000	4.10	400,000	40	240,000	40	49	36		86,400
Tennessee.....	Medium.....	465,000	4.20	1,953,000	42	1,132,740	42	53	39		441,769
		1,870,000	3.95	7,389,750	39	4,478,630	....	....	....	\$	1,724,877
Kansas.....	Fine, fine med., and medium.....	210,000	6.75	1,417,500	65	496,125	50	57	46		228,218
Nebraska.....	Fine, fine med., and medium.....	260,000	6.70	1,742,000	63	644,540	50	57	46		296,488
South Dakota.....	Fine, fine med., and medium.....	450,000	7.00	3,150,000	62	1,197,000	52	57	46		550,620
North Dakota.....	Fine, fine med., and medium.....	240,000	7.50	1,800,000	62	1,038,400	52	57	46		294,664
Montana.....	Fine, fine med., and medium.....	420,000	7.50	3,150,000	63	1,155,500	54	58	47		547,850
Wyoming.....	Fine, fine med., and medium.....	360,000	8.30	29,880,000	69	9,262,800	52	56	44		4,075,632
Idaho.....	Fine, fine med., and medium.....	1,900,000	7.50	14,250,000	64	5,130,000	50	57	44		2,257,200
Washington.....	Fine, fine med., and medium.....	375,000	9.10	3,412,500	70	1,023,750	52	56	43		440,213
Oregon.....	Fine, fine med., and medium.....	1,950,000	8.50	16,575,000	69	5,138,250	52	59	49		2,517,743
California.....	33% fall, 67% spring.....	1,800,000	7.00	12,600,000	67	3,496,000	42	56	45		1,683,200
Nevada.....	Fine, fine med., and medium.....	1,800,000	7.50	13,725,000	66	4,860,000	50	52	50		330,900
Utah.....	Fine, fine med., and medium.....	1,900,000	7.25	13,775,000	66	4,883,500	50	54	43		2,013,905
Colorado.....	Fine, fine med., and medium.....	1,075,000	6.75	7,256,250	67	2,394,563	45	56	43		1,029,662
Arizona.....	Fine, fine med., and medium.....	775,000	6.50	5,037,500	66	1,712,750	50	57	48		822,120
New Mexico.....	Fine, fine med., and medium.....	2,700,000	6.50	17,550,000	65	6,142,500	48	56	44		2,702,700
Texas.....	25% fall, 75% spring.....	1,350,000	6.50	8,775,000	66	2,983,500	52	57	44		1,312,740
Oklahoma and Indian Territo.....	Fine, fine med., and medium.....	55,000	6.50	357,500	67	117,975	45	55	50		58,988
		3,440,000	7.40	173,558,250	66.4	58,776,453	....	....	....	\$	\$26,671,943
Totals.....		36,319,000	6.95	252,675,300	60	100,967,080	47	7155.2	43.6		\$843,785,054
Pulled wool.....		.....	.....	43,500,000	27	31,755,000	47	556	43.4		13,737,300
Total product, 1913.....		.....	.....	296,175,300	....	132,022,080	47	7155.2	43.6		\$857,582,954

Average value unscoured, 1911, 20.9; 1912, 22.4; 1913, 17.3.

TABLE NO. 66.  
STATISTICS OF SHEEP AND WOOL—NUMBER OF SHEEP IN THE  
WORLD ACCORDING TO THE MOST RECENT AVAILABLE STATIS-  
TICS AND ESTIMATES.

COUNTRY.	No. of Sheep.
North America:	
United States: Continental .....	*51,482,000
Noncontiguous, except Philippine Islands:	
Hawaii .....	76,719
Porto Rico .....	6,363
Alaska .....	199
Total .....	83,281
Total United States .....	51,565,281
Canada .....	2,389,300
Newfoundland .....	78,052
Mexico .....	3,424,430
Central America .....	124,044
Cuba .....	9,982
British West Indies .....	27,980
Dutch West Indies .....	22,643
Guadeloupe .....	11,731
	6,088,162
Total North America .....	57,653,443
South America:	
Argentina .....	80,401,486
Brazil .....	4,224,286
Chile .....	26,286,296
Uruguay .....	715,000
Falkland Islands .....	746,000
Colombia .....	409,000
Other South America .....	
Total South America .....	112,782,048
Europe:	
Austria Hungary:	
Austria .....	2,428,586
Hungary .....	7,168,054
Bosnia-Herzegovnia .....	2,498,854
Total .....	12,095,494
Belgium .....	235,722
Bulgaria .....	8,130,997
Denmark, Iceland and Faroe Islands .....	1,319,197
Finland .....	934,447
France .....	16,000,000
Germany .....	5,787,848
Greece .....	4,568,158
Italy .....	11,162,708
Montenegro .....	400,000
Netherlands .....	889,036
Norway .....	1,393,488
Portugal .....	3,072,998
Roumania .....	5,655,444
Russia in Europe .....	\$39,200,000
Saxony .....	58,185
Servia .....	3,160,166
Spain .....	15,117,105
Sweden .....	1,310,217
Switzerland .....	159,727
Turkey .....	†6,912,568
United Kingdom, including Isle of Man, etc. ....	27,629,206
All other Europe .....	26,120
Total Europe .....	164,888,831

\*Includes lambs.

‡Includes goats. †Not including vilayets of Scutari and Constantinople.

TABLE NO. 66 (CONTINUED).  
STATISTICS OF SHEEP AND WOOL—NUMBER OF SHEEP IN THE  
WORLD ACCORDING TO THE MOST RECENT AVAILABLE STATIS-  
TICS AND ESTIMATES.

COUNTRY.	No. of Sheep.
Asia:	
British India.	
British provinces .....	23,237,546
Native states .....	3,321,366
Total .....	26,558,912
Ceylon .....	96,335
Cyprus .....	*294,456
Japan .....	3,411
Philippine Islands .....	88,760
Russia in Asia .....	38,017,000
Turkey in Asia .....	45,000,000
Total Asia .....	\$110,058,874
Africa:	
Algeria .....	9,066,916
British East Africa .....	6,000,000
German East Africa .....	1,560,000
German South West Africa .....	300,722
Madagascar .....	333,454
Rhodesia .....	250,182
Soudan (Anglo-Egyptian) .....	952,950
Tunis .....	615,584
Uganda Protectorate .....	471,297
Cape of Good Hope .....	17,136,936
Natal .....	1,520,238
Orange Free State .....	8,600,582
Transvaal .....	3,418,165
All other Africa .....	1,130,335
Total Africa .....	51,357,381
Oceania:	
Australia .....	83,451,867
New Zealand .....	23,750,153
Total Australasia .....	107,202,020
Other Oceania .....	15,120
Total Oceania .....	107,217,140
Total world .....	603,957,717

\*Report of Consul J. H. Snodgrass Jan. 6, 1913. \$No data are available for China.

The total number as given in this report last year was 626,672,286, the total this year being 603,957,717 shows a reduction in number of 22,914,469. The loss occurring principally in Europe and Australia.

TABLE NO. 67—STATISTICS OF SHEEP AND WOOL—WOOL PRODUCTION OF THE WORLD.

From the latest official returns and estimates.

COUNTRY.	WOOL
North America:	Pounds.
United States.....	296,175,300
British Provinces .....	11,210,000
Mexico .....	7,500,000
Central America and West Indies .....	1,000,000
Total North America.....	315,285,300
South America:	
Argentina .....	325,819,420
Brazil .....	1,130,000
Chile .....	27,745,080
Peru .....	9,940,000
Falkland Islands .....	4,324,000
Uruguay .....	156,967,520
All other South America reported .....	5,000,000
Total South America .....	530,726,020
Europe:	
United Kingdom .....	132,754,430
Austria-Hungary .....	41,600,000
France .....	78,000,000
Germany .....	25,600,000
Spain .....	52,000,000
Portugal .....	10,000,000
Greece .....	14,000,000
Italy .....	21,500,000
Russia (Europe) .....	320,000,000
Turkey and Balkan States.....	90,500,000
All other Europe .....	18,000,000
Total Europe .....	803,954,430
Asia:	
British India .....	60,000,000
China .....	50,000,000
Russia (Asiatic) .....	60,000,000
Turkey (Asiatic) .....	90,000,000
Persia .....	12,146,000
All other Asia reported .....	1,000,000
Total Asia .....	273,146,000
Africa:	
Algeria .....	33,184,000
British Africa .....	157,761,470
Tunis .....	3,735,000
All other Africa reported .....	13,000,000
Total Africa .....	207,680,470
Oceania:	
Australia (exports) .....	551,977,702
New Zealand .....	169,843,814
Australasia .....	721,821,516
Consumed in Australasian manufactures .....	28,175,775
All other Oceania reported .....	100,000
Total Oceania .....	750,097,291
Total world .....	2,880,889,511

TABLE NO. 68—OFFICIAL VOTE OF THE STATE OF MONTANA.  
Cast at the Regular Election Held on the 3rd day of November, A. D. 1914,  
as Canvassed by the State Board of Canvassers.

For Congressman.

COUNTIES	Evans, John M. Democrat	Stout, Tom Democrat	Maddox, Fletcher Republican	McCormick, Wash. J. Republican	Erinsson, James M. Progressive	Rankin, Wellington D. Progressive	Duncan, Lewis J. Socialist	Kent, W. E. Socialist
Beaverhead .....	686	613	675	622	80	76	79	60
Big Horn .....	244	242	218	240	21	23	3	3
Blaine .....	606	575	244	204	254	234	108	70
Broadwater .....	552	508	332	315	25	36	72	32
Carbon .....	823	795	834	788	44	41	374	246
Cascade .....	2,080	2,179	1,470	1,291	67	94	605	436
Chouteau .....	953	979	742	699	41	42	109	93
Custer .....	728	724	643	608	296	284	216	129
Dawson .....	966	959	936	926	76	76	160	138
Deer Lodge .....	1,623	1,491	1,020	979	24	26	141	82
Fallon .....	750	704	705	704	125	115	125	97
Fergus .....	1,792	2,032	1,010	929	312	335	400	318
Flathead .....	1,274	1,215	488	509	959	923	464	351
Gallatin .....	1,444	1,340	1,110	1,132	74	85	169	124
Granite .....	401	342	200	249	75	84	138	76
Hill .....	1,106	970	583	548	84	96	332	268
Jefferson .....	474	414	245	243	126	119	148	91
Lewis and Clark .....	1,738	1,681	1,266	1,218	204	396	279	185
Lincoln .....	409	407	247	283	75	90	296	258
Madison .....	769	747	623	575	50	52	142	93
Meagher .....	628	797	537	464	35	41	100	65
Mineral .....	292	184	50	89	30	40	169	114
Missoula .....	1,985	1,153	696	1,167	315	468	1,096	754
Musselshell .....	719	694	774	729	23	32	257	196
Park .....	879	829	781	808	158	180	232	160
Powell .....	585	516	500	525	56	57	185	148
Ravalli .....	909	787	384	435	429	509	417	221
Richland .....	676	677	399	402	333	310	128	100
Rosebud .....	418	413	680	666	22	25	85	67
Sanders .....	564	508	461	444	94	125	148	122
Sheridan .....	1,139	1,052	628	611	386	321	452	264
Silver Bow .....	4,453	4,296	2,824	2,926	295	299	3,810	3,377
Stillwater .....	451	442	366	397	159	168	42	38
Sweet Grass .....	292	245	276	260	138	115	32	20
Teton .....	784	757	757	735	87	95	181	160
Toole .....	484	448	366	359	15	17	86	73
Valley .....	921	957	647	606	166	175	274	206
Wibaux .....	157	147	281	322	9	9	44	41
Yellowstone .....	1,257	1,337	1,048	1,154	404	441	184	148
Total.....	37,012	35,156	26,046	26,161	6,166	6,694	12,278	9,430

TABLE NO. 68 (CONTINUED)—OFFICIAL VOTE OF THE STATE OF MONTANA.

For Supreme Judge.

COUNTIES	Clements, James M. Democrat	Holloway, William L. Republican	Wallace, Charles A. Socialist
Beaverhead .....	661	833	69
Big Horn .....	230	299	8
Blaine .....	529	379	108
Broadwater .....	419	559	47
Carbon .....	694	1,022	325
Cascade .....	1,846	1,871	490
Chouteau .....	738	929	111
Custer .....	726	953	173
Dawson .....	792	1,118	164
Deer Lodge .....	1,410	1,314	97
Fallon .....	629	833	121
Fergus .....	1,716	1,382	359
Flathead .....	1,315	1,039	423
Gallatin .....	949	1,790	110
Granite .....	366	387	100
Hill .....	839	792	354
Jefferson .....	447	427	96
Lewis and Clark .....	1,622	1,966	198
Lincoln .....	370	343	286
Madison .....	706	801	103
Meagher .....	590	746	88
Mineral .....	213	118	156
Missoula .....	1,167	1,557	974
Musselshell .....	572	894	211
Park .....	791	1,136	202
Powell .....	481	665	179
Ravalli .....	694	812	258
Richland .....	624	681	128
Rosebud .....	357	765	78
Sanders .....	435	564	136
Sheridan .....	1,036	1,133	459
Silver Bow .....	4,050	3,350	3,514
Stillwater .....	386	526	41
Sweet Grass .....	293	342	.....
Teton .....	657	921	168
Toole .....	403	454	85
Valley .....	704	866	266
Wibaux .....	136	335	.....
Yellowstone .....	1,199	1,524	190
Total .....	31,495	36,415	10,875

TABLE NO. 68 (CONTINUED)—OFFICIAL VOTE OF THE STATE OF MONTANA.

For Railroad Commissioner

COUNTIES	McCormick, J. E. Democrat	Boyle, Daniel Republican	Williams, James A. Progressive	Pietila, J. J. Socialist
Beaverhead	653	764	98	63
Big Horn	229	282	20	3
Blaine	516	272	298	90
Broadwater	523	416	33	45
Carbon	697	1,004	42	320
Cascade	1,959	1,671	116	455
Chouteau	758	930	62	103
Custer	679	811	305	145
Dawson	756	1,086	79	161
Deer Lodge	1,494	1,100	32	102
Fallon	614	682	400	97
Fergus	1,651	1,199	464	325
Flathead	1,132	652	982	347
Gallatin	1,195	1,400	101	106
Granite	394	284	121	94
Hill	895	705	117	313
Jefferson	514	274	143	87
Lewis and Clark	1,392	1,668	391	185
Lincoln	354	318	100	269
Madison	710	747	42	96
Meagher	612	703	38	81
Mineral	214	124	46	138
Missoula	1,255	1,087	616	866
Musselshell	598	840	34	207
Park	742	1,051	195	167
Powell	516	624	65	163
Ravalli	763	462	575	259
Richland	603	447	110	75
Rosebud	373	732	36	67
Sanders	417	546	122	132
Sheridan	1,096	817	568	430
Silver Bow	4,215	3,121	357	3,400
Stillwater	379	408	241	38
Sweet Grass	296	281	166	22
Teton	640	843	137	153
Toole	391	453	33	78
Valley	730	724	265	239
Wibaux	151	321	15	47
Yellowstone	1,055	1,390	548	144
Total	32,163	31,239	8,113	10,112

TABLE NO. 68 (CONTINUED)—OFFICIAL VOTE OF THE STATE OF MONTANA.

## Initiative Measures

COUNTIES	For Referendum Measure No. 6 Kiley Boxing Law	Against Referendum Measure No. 6 Kiley Boxing Law	For Initiative Measure No. 7 Compensation	Against Initiative Measure No. 7 Compensation	For Initiative Measure No. 8 Farm Loan Bill	Against Initiative Measure No. 8 Farm Loan Bill
Beaverhead .....	639	792	507	971	753	626
Big Horn .....	241	244	219	309	335	149
Blaine .....	570	636	551	737	676	470
Broadwater .....	332	540	347	617	415	429
Carbon .....	800	1,068	1,031	991	1,080	758
Cascade .....	1,907	2,111	1,678	2,592	2,618	1,324
Chouteau .....	632	1,152	461	1,383	920	827
Custer .....	753	1,019	707	1,210	840	750
Dawson .....	551	1,199	779	1,338	1,161	785
Deer Lodge .....	1,310	1,393	937	1,856	1,538	978
Fallon .....	656	1,147	623	1,319	1,009	799
Fergus .....	1,622	1,942	1,688	1,938	2,521	943
Flathead .....	1,111	1,786	1,700	1,485	1,845	926
Gallatin .....	988	1,772	702	2,143	1,143	1,515
Granite .....	317	568	346	567	493	366
Hill .....	934	1,064	804	1,233	1,323	634
Jefferson .....	374	569	416	584	519	413
Lewis and Clark .....	1,990	1,455	1,847	1,809	2,069	1,302
Lincoln .....	369	587	611	442	578	314
Madison .....	592	827	493	1,061	647	750
Meagher .....	566	760	491	901	626	556
Mineral .....	326	279	418	223	442	129
Missoula .....	1,580	2,142	2,565	1,288	2,805	724
Musselshell .....	761	862	746	1,018	996	592
Park .....	909	1,171	869	1,238	1,007	1,009
Powell .....	579	737	555	786	638	612
Ravalli .....	817	1,076	1,332	795	1,310	452
Richland .....	700	825	710	880	880	575
Rosebud .....	415	715	351	814	639	452
Sanders .....	428	651	692	514	730	331
Sheridan .....	1,281	1,647	1,252	1,914	1,681	1,149
Silver Bow .....	4,851	4,481	6,256	3,413	4,810	3,027
Stillwater .....	363	556	332	675	487	364
Sweet Grass .....	223	542	159	637	397	339
Teton .....	714	927	619	1,077	1,010	610
Toole .....	364	521	422	519	655	249
Valley .....	810	1,011	954	1,011	1,103	597
Wibaux .....	231	356	202	418	333	241
Yellowstone .....	1,484	1,451	1,607	1,564	2,111	710
Total .....	34,440	42,581	36,991	44,275	45,162	27,780

TABLE NO. 68 (CONTINUED)—OFFICIAL VOTE OF THE STATE OF MONTANA.

## Initiative Measures and Constitutional Amendments.

COUNTIES	For Initiative Measure No. 9 Consolidation	Against Initiative Measure No. 9 Consolidation	For Amendment to Constitution Suffrage	Against Amendment to the Constitution Suffrage	For Temporary Increase in Rate of Taxation	Against Temporary Increase in Rate of Taxation
Beaverhead	167	1,311	605	817	407	955
Big Horn	174	331	291	218	226	261
Blaine	501	714	511	757	419	800
Broadwater	222	705	483	455	305	603
Carbon	750	1,164	1,099	830	726	1,159
Cascade	2,015	2,067	1,943	2,126	1,135	2,771
Chouteau	514	1,285	908	919	358	1,444
Custer	542	1,239	1,053	805	572	1,179
Dawson	856	1,190	1,003	1,070	809	1,192
Deer Lodge	1,105	1,574	1,098	1,599	1,233	1,342
Fallon	657	1,196	915	1,045	622	1,129
Fergus	1,502	2,044	1,890	1,686	1,338	2,156
Flathead	1,029	1,991	1,830	1,146	976	1,746
Gallatin	228	2,648	1,325	1,471	773	1,981
Granite	278	614	417	464	266	577
Hill	838	1,095	1,018	991	620	1,311
Jefferson	221	741	468	493	334	600
Lewis and Clark	1,723	1,860	1,718	1,954	1,488	2,051
Lincoln	458	459	609	383	421	483
Madison	265	1,235	746	770	456	1,002
Meagher	542	886	732	647	436	811
Mineral	279	320	393	264	327	313
Missoula	2,803	998	2,481	1,397	2,071	1,755
Musselshell	750	896	864	814	660	981
Park	389	1,720	1,162	1,017	633	1,437
Powell	420	890	609	733	524	788
Ravalli	929	1,062	1,389	598	828	956
Richland	668	854	928	698	594	965
Rosebud	338	291	654	511	320	785
Sanders	481	654	799	412	492	626
Sheridan	1,403	1,495	1,420	1,536	1,239	1,689
Silver Bow	3,599	4,801	4,471	4,505	3,693	4,408
Stillwater	177	800	659	408	232	782
Sweet Grass	151	640	323	445	157	615
Teton	799	895	1,005	722	524	1,128
Toole	359	537	538	364	300	549
Valley	933	889	950	839	670	1,022
Wibaux	243	346	283	515	211	385
Yellowstone	1,157	1,874	1,712	1,314	1,316	1,528
Total.....	30,465	46,311	41,302	37,588	28,703	46,265

TABLE NO. 68 (CONTINUED)—OFFICIAL VOTE OF THE STATE OF MONTANA.

## Miscellaneous

COUNTIES	John A. Matthews, Dist. Judge 14th District	E. H. Goodman, Dist. Judge 14th District	For County Seat Baker	For County Seat Ekalaka	John E. Patterson, For Dist. Judge 4th Dist.	Theo. Lentz, For Dist. Judge 4th Dist.	Welling, Napton, For Dist. Judge 4th Dist.
Broadwater .....	681	1	1,170	1,108	...	...	...
Fallon .....	1,038	...	...	...	...	...	...
Meagher .....	...	...	...	...	118	357	62
Mineral .....	...	...	...	...	640	770	339
Missoula .....	...	...	...	...	220	134	28
Ravalli .....	...	...	...	...	135	61	25
Sanders .....	...	...	...	...	...	...	...
Total.....	1,719	1	1,170	1,108	1,113	1,322	454

## OFFICIAL DIRECTORY.

United States Officials.

OFFICE	NAME	ADDRESS
Judge U. S. District Court.....	George M. Bourquin	Butte
U. S. District Attorney.....	B. K. Wheeler	Butte
Asst. U. S. District Attorney.....	Homer G. Murphy..	Helena
Asst. U. S. District Attorney.....	Frank Woody	Butte
Clerk U. S. District Court.....	George W. Sproule..	Helena
U. S. Marshal.....	Wm. Lindsay.....	Helena
Master in Chancery.....	Oliver T. Crane.....	Helena
Master in Chancery.....		Butte
Collector of Customs.....	A. T. King.....	Great Falls
Immigration Inspector.....	L. T. Plummer.....	Helena
Assayer in Charge U. S. Assay Office.....	Herbert Goodall.....	Helena
Surveyor General.....	Henry Gerharz.....	Helena
Collector of Internal Revenue.....	W. C. Whaley.....	Helena
Section Director U. S. Weather Bureau.....	R. F. Young.....	Helena
Dist. Eng. U. S. Geolog. Survey (Water Resources).....	W. A. Lamb.....	Helena
Chief Clerk Ry. Mail Service.....	Geo. M. Fuller.....	Helena
Supervising Eng. U. S. Reclamation Service.....	H. N. Savage.....	Helena

## TERMS OF COURT.

At Helena—First Mondays in April and November.

At Butte—First Tuesdays in February and September.

At Billings—First Mondays in March and August.

At Great Falls—First Mondays in May and October.

At Missoula—First Mondays in January and June.

## U. S. LAND OFFICE OFFICIALS.

REGISTER	RECEIVER	LAND OFFICE
Jos. Binnard.....	Geo. O. Freeman.....	Helena
F. W. Appleton.....	W. H. Sales.....	Bozeman
A. Kircher.....	J. S. Hamilton.....	Miles City
Frank M. M'Haffie.....	R. W. Kemp.....	Missoula
F. O. Williams.....	R. M. Goshom.....	Kalispell
H. C. Kelly.....	A. Hogeland.....	Lewistown
R. N. Sutherland.....	Thos. Corbally.....	Great Falls
Fred H. Foster.....	E. J. McLean.....	Billings
Thos. R. Jones.....	E. C. Hargadine.....	Glasgow
M. W. Hutchinson.....	Jake A. Mayer.....	Havre

## REFEREES IN BANKRUPTCY.

REFEREE	RESIDENCE
S. A. Balliet.....	Helena
F. W. Haskins.....	Butte
Charles A. Hills.....	Missoula
A. H. Gray.....	Great Falls
H. A. Frith.....	Billings
J. E. Rockwood.....	Kalispell
E. M. Niles.....	Livingston

## SUPERINTENDENTS OF INDIAN SCHOOLS IN MONTANA.

Arthur E. McFatrige.....	Supt. Blackfeet School.....	Browning
Evan W. Estep.....	Supt. Crow School.....	Crow Agency
Fred C. Morgan.....	Supt. Flathead School.....	Dixon
J. D. Martin.....	Supt. Fort Belknap School.....	Harlem
C. B. Lohmiller.....	Supt. Fort Peck School.....	Poplar
John A. Buntin.....	Supt. Tongue River School.....	Lame Deer

## DIRECTORY OF STATE OFFICIALS.

## CONGRESSIONAL DELEGATION.

Office	Name and Residence	Term Expires
United States Senator.....	Henry L. Myers, Hamilton...	March 4, 1917
United States Senator.....	T. J. Walsh, Helena.....	March 4, 1919
Representative.....	Thomas Stout, Lewistown...	March 4, 1917
Representative.....	John M. Evans, Missoula....	March 4, 1917

## MEMBERS OF THE SENATE.

Name	Politics	County	Residence
*Abbott, P. M.....	Dem.....	Gallatin .....	Three Forks.
Annln, J. B.....	Pro.....	Stillwater .....	Columbus.
*Asbridge, Jos. L.....	Dem.....	Musselshell .....	Roundup.
Brower, A. J.....	Rep.....	Missoula .....	Ronan.
*Brownlee, Robert.....	Rep.....	Sweet Grass.....	Big Timber.
*Burla, G. F.....	Dem.....	Big Horn .....	Hardin.
Burlingame, J. M.....	Rep.....	Cascade .....	Great Falls.
*Byrnes, Owen .....	Dem.....	Lewis and Clark.....	Helena.
*Cato, O. C.....	Dem.....	Custer .....	Miles City.
Clark, T. L.....	Dem.....	Toole .....	Sweet Grass.
Clay, Geo. W.....	Rep.....	Valley .....	Malta.
*Darroch, J. M.....	Dem.....	Park .....	Livingston.
Dearborn, A. R.....	Dem.....	Granite.....	Phillpsburg.
Dwight, Reuben.....	Rep.....	Sanders .....	Perma.
Edwards, J. E.....	Rep.....	Rosebud .....	Forsyth.
Fishbeck, F. G.....	Rep.....	Sheridan .....	Plentywood.
Gallwey, H. A.....	Dem.....	Silver Bow.....	Butte.
*Grande, A. C.....	Rep.....	Meagher .....	Lennep.
Hogan, T. S.....	Dem.....	Yellowstone .....	Billings.
Junod, O. H.....	Rep.....	Madison .....	Sheridan.
Kane, Thos.....	Pro.....	Ravalli .....	Hamilton.
Kinney, J. C.....	Rep.....	Wibaux .....	Wibaux.
Lane, J. E.....	Dem.....	Fergus .....	Lewistown.
Larson, T. O.....	Rep.....	Teton .....	Choteau.
*Mackenzie, D. S.....	Rep.....	Hill .....	Havre.
McCone, Geo.....	Rep.....	Dawson.....	Burns.
Meadors, J. P.....	Rep.....	Richland.....	Riverview.
*Minor, J. M.....	Dem.....	Deer Lodge.....	Anaconda.
Muffly, C. S.....	Dem.....	Broadwater .....	Winston.
Oliver, John.....	Pro.....	Fallon .....	Ekalaka.
*O'Shea, D. G.....	Dem.....	Carbon .....	Red Lodge.
Parker, M. H.....	Dem.....	Jefferson .....	Boulder.
Roberts, C. B.....	Rep.....	Lincoln .....	Fortine.
*Selway, E. O.....	Rep.....	Beaverhead .....	Dillon.
Stevens, Geo. H.....	Rep.....	Chouteau .....	Ft. Benton.
*Taylor, S. B.....	Pro.....	Blaine .....	Chinook.
Whiteside, Fred.....	Dem.....	Flathead .....	Kalispell.
*Williams, Chas. H.....	Rep.....	Powell .....	Deer Lodge.
Willett, O. G.....	Ind.....	Mineral .....	Alberton.

\*Holdovers.

## HOUSE OF REPRESENTATIVES.

Name	Politics	County	Residence
Anderson, R. J.....	Dem.....	Fergus .....	Lewistown.
Baldwin, C. J.....	Rep.....	Carbon .....	Red Lodge.
Baxter, E. C.....	Rep.....	Meagher .....	Two Dot.
Bechtel, L. A.....	Soc.....	Silver Bow.....	Butte.
Bent, W. A.....	Dem.....	Carbon .....	Bowler.
Bompert, J. L.....	Dem.....	Lewis and Clark.....	Helena.
Booth, G. T.....	Rep.....	Cascade .....	Great Falls.
Burnett, Harvey.....	Dem.....	Fergus .....	Gilt Edge.
Burns, Jas.....	Dem.....	Cascade .....	Great Falls.
Carpenter, L. W.....	Dem.....	Rosebud .....	Lee.
Carlier, C. E.....	Rep.....	Deer Lodge.....	Anaconda.
Cavitt, J. W.....	Dem.....	Toole .....	Grand View.
Coburn, J. W.....	Rep.....	Teton .....	Cut Bank.
Cholnnere, Oliver.....	Dem.....	Silver Bow.....	Butte.
Collins, J. B.....	Rep.....	Custer .....	Miles City.
Corr, Frank.....	Dem.....	Silver Bow.....	Butte.
Corwin, J. W.....	Rep.....	Stillwater .....	Park City.
Crismas, W. J.....	Dem.....	Carbon .....	Joliet.
Day, E. C.....	Dem.....	Lewis and Clark.....	Helena.
Dwyer, J. V.....	Dem.....	Silver Bow.....	Butte.
Doner, Jas.....	Dem.....	Silver Bow.....	Butte.
Eliel, Frank.....	Rep.....	Beaverhead .....	Dillon.
Easton, Dana.....	Rep.....	Sheridan .....	Poplar.
Elmsel, C. S.....	Dem.....	Fallon .....	Pinlele.
Fishbaugh, L. M.....	Dem.....	Chouteau .....	Carter.

Flannigan, J. J.	Dem.	Silver Bow.	Butte.
Foltz, R. W.	Dem.	Silver Bow.	Butte.
Fousek, A. J.	Dem.	Cascade	Great Falls.
Franklin, W. P.	Dem.	Sweet Grass.	Big Timber.
Gallagher, Wm.	Rep.	Yellowstone	Billings.
Gladden, J. W.	Rep.	Sanders	Perma.
Graybeal, J. M.	Dem.	Gallatin	Belgrade.
Gunn, C. C.	Dem.	Blg Horn.	Hardin.
Hall, A. C.	Rep.	Madison	Virginia City.
Harmon, W. E.	Rep.	Gallatin	Bozeman.
Harper, Geo. C.	Rep.	Ravalli	Stevensville.
Hayes, Frank.	Dem.	Silver Bow.	Butte.
Hawks, J. A.	Dem.	Wibaux	Wibaux.
Healey, Dan.	Dem.	Park	Livingston.
Hedrick, E. O.	Rep.	Fergus	Moore.
Henry, V. Russell.	Rep.	Chouteau	Hawarden.
Higgins, Ronald.	Rep.	Missoula	Missoula.
Hills, C. A.	Rep.	Missoula	St. Ignatius.
Hogan, Barney.	Dem.	Deer Lodge.	Anaconda.
Johnson, L. O.	Dem.	Ravalli	Hamilton.
Jorgensen, Rasmus.	Dem.	Cascade	Great Falls.
Kelly, W. H.	Dem.	Custer	Miles City.
Kiley, M. F.	Dem.	Silver Bow	Butte.
Lemmon, C. A.	Dem.	Deer Lodge	Anaconda.
Lord, R. M.	Dem.	Richland	Sidney.
Lusk, A. K.	Rep.	Missoula	Missoula.
McCarthy, Gene.	Dem.	Broadwater	Townsend.
McDonald, C. S.	Rep.	Teton	Choteau.
Macdonald, A. D.	Dem.	Flathead	Kalispell.
McMahon, W. J.	Dem.	Silver Bow.	Butte.
McNally, J. E.	Dem.	Silver Bow.	Butte.
Mackel, Alex.	Soc.	Silver Bow.	Butte.
Marsh, F. R.	Dem.	Flathead	Kalispell.
Mansur, C. M.	Dem.	Flathead	Polson.
Mason, D. N.	Dem.	Missoula	Ronan.
Minnick, R. P.	Dem.	Valley	Saco.
Moe, P. J.	Rep.	Dawson	Glendive.
Moore, George.	Rep.	Powell	Avon.
Morris, C. F.	Dem.	Hill	Havre.
Nutting, L. A.	Dem.	Yellowstone	Laurel.
Ostle, Jos.	Dem.	Blaine	Harlem.
Page, J. R.	Dem.	Granite	Drummond.
Phillips, Ira J.	Dem.	Fergus	Straw.
Parker, G. M.	Rep.	Park	Wilsall.
Prosser, Martin.	Dem.	Lewis and Clark.	Helena.
Rainey, J. A.	Dem.	Dawson	Glendive.
Ramsey, Geo. L.	Dem.	Lewis and Clark.	Helena.
Rasmussen, C. A.	Rep.	Dawson	Glendive.
Rixon, F. P.	Rep.	Yellowstone	Billings.
Rundle, S. J.	Rep.	Valley	Glasgow.
Sales, W. H.	Rep.	Gallatin	Bozeman.
Sanderson, C. C.	Rep.	Yellowstone	Billings.
Schanck, D. E.	Rep.	Lincoln	Libby.
Schmidt, A. A.	Rep.	Chouteau	Ft. Benton.
Shott, C. A.	Dem.	Madison	Ruby.
Schrump, August.	Rep.	Musselshell	Roundup.
Scott, H. F.	Rep.	Yellowstone	Billings.
Searles, Chas. A.	Ind.	Mineral	Alberton.
Sedgwick, J. Lee.	Rep.	Chouteau	Ft. Benton.
Smith, David C.	Rep.	Missoula	Missoula.
Smith, Park.	Rep.	Lewis and Clark.	Helena.
Stone, R. E.	Dem.	Cascade	Great Falls.
Sullivan, M. J.	Dem.	Jefferson	Alhambra.
Vidal, C. E. K.	Dem.	Cascade	Great Falls.
Wallin, W. J.	Rep.	Rosebud	Rosebud.
Wells, H. R.	Dem.	Custer	Miles City.
Willis, John	Dem.	Valley	Glasgow.
Wilde, J. P.	Dem.	Flathead	Whitefish.

## STATE SUPREME COURT.

Name	Position	Elected	Term Expires
Theodore Brantley.....	Chief Justice.....	Nov. 8, 1910..	Jan. 2, 1916
William L. Holloway.....	Associate Justice.....	Nov. 3, 1914..	Jan. 4, 1921
Sidney Sanner.....	Associate Justice.....	Nov. 6, 1912..	Jan. 1, 1919

Clerk of Supreme Court, John T. Athey.  
 Marshal of Supreme Court, M. W. Race.  
 Stenographer, A. C. Schneider.  
 Attendant, W. O. Craig.

## EXECUTIVE OFFICE.

Name	Office
*S. V. Stewart .....	Governor
W. W. McDowell.....	Lieutenant Governor
Will Aiken.....	Private Secy. to the Governor
J. A. Livingston.....	Stenographer

\*Term expires January 1, 1917.

## SECRETARY OF STATE.

*A. M. Alderson.....	Secretary of State
C. C. Burg.....	Deputy
A. E. Reddington.....	Chief Clerk and Stenographer
Leah Steves.....	Automobile Clerk

\*Term expires January 1, 1917.

## STATE AUDITOR.

*Wm. Keating.....	State Auditor
J. F. Cullerton.....	Deputy Auditor
W. F. McKee.....	Deputy Comm'r. of Insurance
J. F. McCormick.....	State Fire Marshal
J. L. Easterly.....	Acting Chief Clerk
Wm. Keating Jr.....	Stenographer
J. Lewis .....	Stenographer
E. Moriarty .....	Stenographer & Bookkeeper

\*Term expires January 1, 1917.

## STATE TREASURER.

*Wm. C. Rae.....	State Treasurer
Thos. J. Hefling.....	Deputy
Ben H. Rae.....	Clerk
Margaret Muffly.....	Stenographer

\*Term expires January 1, 1917.

## ATTORNEY GENERAL.

*D. M. Kelly.....	Attorney General
W. H. Poorman.....	First Assistant
J. H. Alvord.....	Second Assistant
C. S. Wagner.....	Third Assistant
John J. McGinness.....	Law Clerk
M. McCormick.....	Stenographer

\*Term expires January 1, 1917.

## DEPARTMENT OF PUBLIC INSTRUCTION. ....

*H. A. Davee.....	Supt. of Public Instruction
H. H. Swain.....	Deputy Supt. of Public Instruction
C. W. Tenney.....	Rural School Inspector
Lela Bryant .....	Stenographer
Maud O'Hara.....	Clerk

\*Term expires January 1, 1917.

## STATE GAME AND FISH WARDENS.

Name	Office	Address	District No.
*J. L. De Hart	State Game and Fish Ward	Helena .....	
D. H. Morgan	Chief Deputy .....	Helena .....	
Peter Scharrenbroich	Salaried Deputy .....	Helena .....	1
W. H. O'Connell	Salaried Deputy .....	Kalispell .....	2
W. W. Kennedy	Salaried Deputy .....	Missoula .....	3 & 4
Thomas E. Evans	Salaried Deputy .....	Missoula .....	4
Harry N. Morgan	Salaried Deputy .....	Ovando .....	5
Jas. C. Duffy	Salaried Deputy .....	Phillipsburg .....	6
F. E. Pilling	Salaried Deputy .....	Butte .....	7
J. W. Carney	Salaried Deputy .....	Dillon .....	8
D. M. Halford	Salaried Deputy .....	Boulder .....	9
Mark W. Stout	Salaried Deputy .....	Bozeman .....	9
A. B. Rosman	Salaried Deputy .....	Townsend .....	10
Herman Brockman	Salaried Deputy .....	Libby .....	11
John T. Moore	Salaried Deputy .....	Chouteau .....	12
E. C. Carruth	Salaried Deputy .....	Havre .....	13
W. D. Delphy	Salaried Deputy .....	Great Falls .....	14
J. A. Weaver	Salaried Deputy .....	Lewistown .....	15
T. A. Berkin	Salaried Deputy .....	Lewistown .....	15
P. W. Nelson	Salaried Deputy .....	Livingston .....	16
Geo. E. Mushbach	Salaried Deputy .....	Red Lodge .....	17
T. J. Thompson	Salaried Deputy .....	Forsyth .....	18
Charles Marrs	Salaried Deputy .....	Jordan .....	19
George E. Burke	Salaried Deputy .....	Glasgow .....	20

\*Term expires April 1, 1917.

## STATE LAND DEPARTMENT.

Name	Office
*Sidney Miller .....	Register of State Lands
Joseph Oker .....	Deputy Register
W. R. Strong .....	Cashier
E. B. Thompson .....	Stenographer
Geo. B. Hopkins .....	Clerk
H. L. Sherlock .....	Lease Clerk
Agnes Dorsey .....	Clerk
§C. A. Whipple .....	State Land Agent

\*Term expires March 20, 1917.

§Term expires Aug. 17, 1917.

## STATE FORESTRY DEPARTMENT.

John C. Van Hook .....	State Forester
D. D. Johnson .....	Deputy
Chas. S. Cairncross .....	Field Representative

The State Forester's office is administered from the State Land department.

## OFFICE OF STATE TAX COMMISSIONER.

*Geo. M. Houtz .....	Commissioner
Harry Welcome .....	Secretary

\*Term expires April 1, 1919.

## STATE ENGINEER'S OFFICE.

*A. W. Mahon .....	State Engineer
C. S. Heidel .....	Hydrographer
A. E. Lamb .....	Assistant Hydrographer
G. R. Davies .....	Ex-Officio Secretary

\*Term expires March 7, 1915.

## STATE EXAMINER'S OFFICE.

*H. S. Magraw .....	State Examiner
(Vacancy) .....	First Assistant
(Vacancy) .....	Second Assistant
Claude Elder .....	Deputy
Ray S. McAllister .....	Deputy
A. T. Hibbard .....	Deputy
Florence Gainan .....	Clerk

\*Term expires March 4, 1917.

## STATE DAIRY COMMISSION.

Name	Office	Address
*A. G. Scholes .....	Dairy Commissioner .....	Helena
Wm. G. Dessly .....	Deputy .....	Helena
I. G. Arthur .....	Deputy .....	Great Falls
C. Percy .....	Stenographer .....	Helena

\*Term expires April 1, 1917.

## OFFICE OF STATE VETERINARY SURGEON.

*Dr. W. J. Butler .....	State Veterinary Surgeon .....	Helena
E. D. Nash .....	Chief Deputy .....	Helena
A. J. DuFrene .....	Deputy .....	Glendive
J. C. Boyd .....	Deputy .....	Helena
O. J. Johnson .....	Deputy .....	Miles City
F. S. Gray .....	Deputy .....	Great Falls
N. B. Smith .....	Deputy .....	Billings
J. W. Richardson .....	Deputy .....	Helena
J. J. Mitchell .....	Deputy .....	Helena
M. McFarlane .....	Deputy .....	Helena
Edward J. Grinrod .....	Chief Clerk .....	Helena
Paul Rafferty .....	Stenographer .....	Helena

\*Term expires March 4, 1917.

## OFFICE OF STATE BOARD OF HEALTH.

*Dr. W. F. Cogswell .....	Secretary .....	Helena
F. J. O'Donnell .....	Special Inspector .....	Helena
Marguerite Becker .....	Chief Clerk .....	Helena
Edith G. Briscoe .....	Stenographer .....	Helena
Crysta MacDonald .....	Stenographer .....	Helena
Dr. Emil Starz .....	State Bacteriologist .....	Helena
Prof. W. M. Cobligh .....	State Chemist .....	Bozeman

\*Term expires March 15, 1915. Secretary is appointed by State Board of Health.

## OFFICE OF MONTANA HIGHWAY COMMISSION.

Name	Office
*Geo. R. Metlen	Secretary
Nathalie Sacket	Stenographer

\*Term expires April 1, 1917.

## DEPARTMENT OF AGRICULTURE AND PUBLICITY.

*J. M. Kennedy .....	Commissioner
Seth Maxwell .....	Chief Clerk
Anna McDonald .....	Stenographer

\*Term expires March 5, 1917.

## DEPARTMENT OF LABOR AND INDUSTRY.

*W. J. Swindlehurst .....	Commissioner
W. R. Baker .....	Chief Clerk
Mary A. Stokes .....	Stenographer

\*Term expires March 5, 1917.

## OFFICE OF STATE BOILER INSPECTOR.

Name	Office	Address
*Percy L. Brown .....	State Boiler Inspector .....	Helena
R. Moran .....	Assistant Inspector .....	Helena
Stephen Parker .....	Assistant Inspector .....	Butte
R. A. Prater .....	Assistant Inspector .....	Billings
Roy Sieger .....	Clerk .....	Helena

\*Term expires March 8, 1917.

## OFFICE OF STATE COAL MINE INSPECTOR.

Name	Office
*John Sanderson .....	State Coal Mine Inspector
Roy Sieger .....	Clerk

\*Term expires January 1, 1918.

## OFFICE OF STATE QUARTZ MINE INSPECTOR.

Name	Office	Address
*W. B. Orem.....	State Mine Inspector.....	Helena
Dan J. McGrath.....	Deputy.....	Butte
Roy Sieger.....	Clerk.....	Helena

\*Term expires March 4, 1917.

## BUREAU OF CHILD AND ANIMAL PROTECTION.

*M. L. Rickman.....	Secretary.....	Helena
Wiley Mountjoy.....	Special Deputy.....	Cardwell
P. J. Gilligan.....	Deputy.....	Butte
L. K. Devlin.....	Deputy.....	Havre
James K. Lang.....	Deputy.....	Kalispell
Will Cave.....	Deputy.....	Missoula
Albert E. DeCew.....	Deputy.....	Great Falls
Gustave E. Berg.....	Deputy.....	Billings

\*Term expires March 5, 1917.

## EMPLOYEES OF RAILROAD AND PUBLIC UTILITIES COMMISSIONS.

Office	Name
Commissioner.....	J. H. Hall
Commissioner.....	E. A. Morley
Commissioner.....	J. E. McCormick
Secretary.....	R. F. McLaren
Rate Clerk.....	W. J. Haynes
Auditor.....	F. E. Hoss
Engineer.....	Oscar Reynolds
Inspector.....	S. W. Ross
Inspector of Navigation.....	Captain N. A. Palmer
Stenographer.....	Inez B. Griswold

## STATE DEPARTMENT OF WEIGHTS AND MEASURES.

Name	Office	Address	Dist No.
A. M. Alderson...	Sealer of Weights & Measures, ex-officio.....	Helena .....	
	Chief Deputy Sealer of		
John P. Riddell...	Weights & Measures.....	Helena .....	1
J. W. Houle.....	Inspector of Weights & M.	Helena .....	2
L. D. Manning.....	Inspector of Weights & M.	Butte .....	3
R. Lee Kelley.....	Inspector of Weights & M.	Deer Lodge ....	3
W. W. McCormick.....	Inspector of Weights & M.	Missoula .....	4
C. P. Morrill.....	Inspector of Weights & M.	Kalispell .....	5
C. Z. Pond.....	Inspector of Weights & M.	Great Falls ....	6
Vacancy.....	Vacancy.....	Fort Benton ....	7
Nels A. Levany.....	Inspector of Weights & M.	Homestead .....	8
E. D. Stiles.....	Inspector of Weights & M.	Miles City .....	9
A. F. McNabb.....	Inspector of Weights & M.	Billings .....	10
C. H. Russell.....	Inspector of Weights & M.	Livingston .....	11
G. W. Dewar.....	Inspector of Weights & M.	Havre .....	12
W. V. Wiegand.....	Inspector of Weights & M.	Bozeman .....	13
A. C. Mallory.....	Inspector of Weights & M.	Forsyth .....	14

## STATE GRAIN INSPECTION DEPARTMENT.

*John E. Templeton.....	Chief Grain Inspector
-------------------------	-----------------------

\*Term expires May 1, 1917.

## STATE PAROLE COMMISSIONER.

*J. E. Clifford.....	State Parole Commissioner
----------------------	---------------------------

\*Term expires April 1, 1917.

## STATE ASYLUM FOR THE INSANE.

Name.	Office.	Address
*Dr. J. M. Scanland.....	Superintendent.....	Warm Springs
Dr. J. M. Ragsdale.....	Assistant.....	Warm Springs

\*Term expires March 6, 1917.

## STATE TUBERCULOSIS SANITARIUM.

*Dr. Thos. D. Tuttle..	Superintendent.....	Deer Lodge, R. F. D. No. 1
Emily Larson.....	Matron.....	Deer Lodge, R. F. D. No. 1
Effie Steinhour.....	Head Nurse.....	Deer Lodge, R. F. D. No. 1

\*Term expires November 19, 1916.

## ROSTER OF THE GOVERNOR'S STAFF.

Name	Office
Governor Samuel V. Stewart.....	Commander-in-Chief
Brig. Gen. Phil Greenan, Chief of Staff.....	Adjutant General
Col. James T. Sanford.....	Inspector General
Col. Stephen E. Atkinson.....	Quartermaster General
Col. S. K. Campbell.....	Surgeon General
Major Jesse R. Roote.....	Judge Advocate General
John V. Carroll, Jr.....	Commissary General
George F. Graham.....	Paymaster General
Major A. N. Maxeiner.....	Chief of Ordnance
Major Charles T. Sacket.....	Chief Engineer
Capt. E. D. Porter.....	Chief Signal Officer
Lieut. Col. Gerald Higgins.....	Aide-de-Camp
Lieut. Col. Walter L. Verge.....	Aid-de-Camp
Lieut. Col. Harry G. Wright.....	Aid-de-Camp

## STATE BOARD OF EXAMINERS.

Members.	Title.	Organization.
Samuel V. Stewart.....	Governor.....	President
A. M. Alderson.....	Secretary of State.....	Secretary
D. M. Kelly.....	Attorney General.....	Member

Clerk of the Board, R. N. Hawkins.

## STATE FURNISHING BOARD.

Samuel V. Stewart.....	Governor.....	President
A. M. Alderson.....	Secretary of State.....	Secretary
D. M. Kelly.....	Attorney General.....	Member

Clerk of the Board, R. N. Hawkins.

## STATE BOARD OF LAND COMMISSIONERS.

Samuel V. Stewart.....	Governor.....	President
H. A. Davee.....	Supt. of Public Instruction	Member
A. M. Alderson.....	Secretary of State.....	Member
D. M. Kelly.....	Attorney General.....	Member
Sidney Miller.....		Secretary

Clerk of the Board, Mrs. E. B. Thompson.

## STATE BOARD OF PARDONS.

D. M. Kelly.....	Attorney General.....	President
A. M. Alderson.....	Secretary of State.....	Secretary
William Keating.....	Auditor.....	Member

Clerk of the Board, J. J. Ryan.

## STATE BOARD OF PRISON COMMISSIONERS.

Samuel V. Stewart.....	Governor.....	President
A. M. Alderson.....	Secretary of State.....	Secretary
D. M. Kelly.....	Attorney General.....	Member

Clerk of the Board, J. J. Ryan.

## STATE BOARD OF COMMISSIONERS FOR THE INSANE.

Samuel V. Stewart.....	Governor.....	President
A. M. Alderson.....	Secretary of State.....	Secretary
D. M. Kelly.....	Attorney General.....	Member

Clerk of the Board, J. J. Ryan.

## CAREY LAND ACT BOARD.

Samuel V. Stewart.....	Governor.....	President
A. M. Alderson.....	Secretary of State.....	Secretary
D. M. Kelly.....	Attorney General.....	Member
A. W. Mahon.....	State Engineer.....	Sec. Ex-Officio
G. R. Davies.....		Ass't. Sec.

## STATE BOARD OF EDUCATION.

Members.	Organization.	Address.	Appointed.	Term Expires
Samuel V. Stewart..	President...	Helena....	Ex-Officio...	Jan. 1, 1917
D. M. Kelly.....	Atty. Gen..	Helena....	Ex-Officio...	Jan. 1, 1917
H. A. Davee.....	Secretary...	Helena....	Ex-Officio...	Jan. 1, 1917
O. W. McConnell....	Member....	Helena....	July 5, 1911.	Feb. 1, 1915
Ward H. Nye.....	Member....	Billings....	July 5, 1911.	Feb. 1, 1915
S. D. Largent.....	Member....	Great Falls	June 13, 1912	Feb. 1, 1916
Walter S. Hartman..	Member....	Bozeman....	June 13, 1912	Feb. 1, 1916
John Dietrich.....	Member....	Helena....	May 1, 1913..	Feb. 1, 1917
Joseph C. Smith....	Member....	Dillon.....	May 1, 1913..	Feb. 1, 1917
Charles H. Hall....	Member....	Missoula....	Feb. 11, 1914.	Feb. 1, 1918
J. Bruce Kremer....	Member....	Butte.....	Feb. 11, 1914.	Feb. 1, 1918

## STATE LAW LIBRARY BOARD OF TRUSTEES.

Theodore Brantley..	President...	Helena....	Ex-Officio...	Jan. 1, 1917
Wm. L. Holloway....	Member....	Helena....	Ex-Officio...	Jan. 1, 1915
Sidney Sanner.....	Member....	Helena....	Ex-Officio...	Jan. 1, 1919
A. M. Alderson....	Secretary...	Helena....	Ex-Officio...	Jan. 1, 1917
William Keating....	Member....	Helena....	Ex-Officio...	Jan. 1, 1917

Librarian, A. K. Barbour.

## STATE BOARD OF TEXT BOOK COMMISSIONERS.

Name.	Address.	Appointed.	Term Expires.
L. R. Foote.....	Dillon.....	Mar. 4, 1910..	Mar. 7, 1915
W. E. Harmon.....	Bozeman....	Mar. 4, 1910..	Mar. 7, 1915
H. A. Davee.....	Lewistown...	Mar. 4, 1910..	Mar. 7, 1915
C. V. Fulton.....	Butte.....	Mar. 6, 1912..	Mar. 7, 1917
W. K. Dwyer.....	Anaconda....	Mar. 6, 1912..	Mar. 7, 1917
Ward H. Nye.....	Billings....	Mar. 6, 1912..	Mar. 7, 1917
John Dietrich.....	Helena....	Mar. 6, 1912..	Mar. 7, 1917

## BOARD OF TRUSTEES OF THE STATE HISTORICAL SOCIETY.

W. T. Pigott.....	Helena....	Mar. 13, 1911..	Mar. 26, 1913
James U. Sanders....	Helena....	Mar. 13, 1911..	Mar. 26, 1913
Wesley M. Biggs....	Helena....	Mar. 13, 1911..	Mar. 26, 1913
Frank H. Woody....	Missoula....	Mar. 13, 1911..	Mar. 26, 1913
Lester S. Willson....	Bozeman....	Mar. 13, 1911..	Mar. 26, 1913

Librarian, W. Y. Pemberton; Asst. Librarian, F. A. Fortune; Asst. Librarian, Agnes Dickerson.

## STATE BOARD OF PHARMACY.

Emil Starz.....	Helena....	Feb. 11, 1914.	Feb. 10, 1917
*F. A. Schubert....	Livingston...	Jan. 14, 1913..	Mar. 23, 1915
W. R. Montgomery....	Butte.....	May 6, 1913...	Mar. 25, 1916

\*Secretary.

## STATE BOARD OF MEDICAL EXAMINERS.

W. W. Andrus.....	Miles City....	May 18, 1912..	Mar. 27, 1915
P. H. McCarthy.....	Butte.....	Feb. 2, 1911...	Sept. 26, 1916
William L. Renick....	Butte.....	Feb. 10, 1910..	Mar. 2, 1917
W. P. Mills.....	Missoula....	Feb. 2, 1911...	Feb. 10, 1918
Francis J. Adams....	Great Falls...	May 13, 1912..	Feb. 10, 1919
*W. C. Riddell.....	Helena....	April 1, 1913..	Jan. 1, 1920
LeRoy Southmayd....	Great Falls...	Dec. 19, 1913..	Jan. 1, 1921

\*Secretary.

## STATE BOARD OF OSTEOPATHIC EXAMINERS.

*Asa Willard.....	Missoula....	April 2, 1912..	May 13, 1915
Charles W. Mahaffay....	Helena....	April 2, 1913..	Mar. 27, 1916
W. C. Dawes.....	Bozeman....	Feb. 13, 1913..	Feb. 10, 1917

\*Secretary.

## STATE BOARD OF DENTAL EXAMINERS.

Members.	Address.	Appointed.	Term Expires.
R. C. Purdum.....	Bozeman.....	June 9, 1910..	Feb. 10, 1915
G. E. Longway.....	Great Falls...	April 6, 1911..	Mar. 27, 1916
T. M. Hampton.....	Helena.....	Aug. 8, 1912..	June 23, 1917
*G. A. Chevigny.....	Butte.....	May 6, 1913..	Mar. 2, 1918
Frank Carl.....	Billings.....	Nov. 27, 1914..	April 5, 1919

\*Secretary.

## STATE BOARD OF HEALTH.

Samuel V. Stewart.....	Helena.....	Member, Ex-O	Jan. 1, 1917
D. M. Kelly.....	Helena.....	Member, Ex-O	Jan. 1, 1917
W. J. Butler, vice Pres....	Helena.....	Ex-Officio.....	Mar. 4, 1917
C. E. K. Vidal.....	Great Falls...	Jan. 29, 1912..	Mar. 7, 1915
Edwin F. Maginn.....	Butte.....	May 2, 1913..	Jan. 1, 1917
D. J. Donohue, Pres.....	Glendive.....	May 2, 1913..	Jan. 1, 1917

Secretary: W. F. Cogswell.

## STATE BOARD OF EXAMINERS FOR NURSES.

Miss Florence Aimes.....	Billings.....	May 5, 1913..	May 5, 1915
Miss Margaret M. Hughes..	Helena.....	May 5, 1913..	May 5, 1915
Miss Lucy Marshall.....	Missoula.....	May 5, 1913..	May 5, 1916
Miss Ruby Bohart.....	Bozeman.....	May 5, 1913..	May 5, 1916
Mrs. George N. Bennett....	Butte.....	Oct. 9, 1914...	May 5, 1917

## STATE FISH COMMISSION.

J. L. DeHart.....	Helena.....	Ex-Officio.....	Mar. 13, 1915
*George E. Doll.....	Helena.....	Mar. 2, 1911..	Mar. 13, 1915
W. M. Bickford.....	Missoula.....	Mar. 2, 1911..	Mar. 13, 1917
E. P. Mathewson.....	Anaconda.....	May 10, 1913..	Mar. 13, 1917
M. D. Baldwin.....	Flathead.....	May 10, 1913..	Mar. 13, 1917

\*Secretary.

H. D. Dean, Director State Fish Hatchery, Anaconda.

## LIVESTOCK SANITARY BOARD.

Name.	Organization.	Address.
D. J. Donohue.....	Chairman.....	Glendive
T. C. Power.....	Vice Chairman.....	Helena
E. T. Broadwater.....	Member.....	Havre
W. J. Butler.....	Secretary Ex-Officio...	Helena

## STATE BOARD OF POULTRY HUSBANDRY.

Members.	Address.	Appointed.	Term Expires.
John Rees.....	Anaconda.....	May 12, 1913..	May 2, 1916
Wm. F. Schoppe.....	Bozeman.....	June 30, 1913..	May 2, 1917
John Z. Clem.....	Virginia City..	August 27, 1914	May 2, 1917

## STATE BOARD OF HORTICULTURE.

Samuel V. Stewart.....	Helena.....	Ex-Officio.....	Jan. 1, 1917.
W. J. Crismas.....	Joliet.....	Mar. 10, 1911..	Mar. 10, 1915
C. C. Willis.....	Plains.....	Mar. 10, 1911..	Mar. 10, 1915
J. C. Wood.....	Bigfork.....	Mar. 10, 1911..	Mar. 10, 1915
W. J. Tiedt.....	Missoula.....	Sept. 10, 1914..	Mar. 10, 1915
T. T. Black.....	Whitehall.....	April 24, 1913..	Mar. 10, 1917
Allen Pierse.....	Great Falls...	Feb. 21, 1914..	Mar. 10, 1918
Arthur V. Platt.....	Como.....	Feb. 21, 1914..	Mar. 10, 1918

Secretary M. L. Dean, Missoula.

## BOARD OF MANAGERS OF THE STATE SOLDIERS' HOME.

W. H. Campbell.....	Kalispell.....	Nov. 16, 1911..	Mar. 16, 1915
Charles S. Warren.....	Butte.....	Nov. 19, 1912..	April 18, 1915
Martin Maginnis.....	Helena.....	April 24, 1913	April 18, 1917
Al. Ingraham.....	Columbia Falls	April 24, 1913	April 17, 1917

Department Commander G. A. R. (ex-officio).

Commandant at the Home: J. E. Sprague.

## STATE BOARD OF CHARITIES AND REFORM.

Members.	Address.	Appointed.	Term Expires.
Rev. W. W. VanOrsdel....	Great Falls...	Mar. 16, 1911	Mar. 2, 1915
Rev. James F. McNamee....	Helena.....	Mar. 16, 1911	Mar. 2, 1917
*Rev. D. B. Price.....	Helena.....	May 10, 1913..	Mar. 2, 1919

\*Secretary.

## MONTANA HIGHWAY COMMISSIONERS.

Name.	Office.	Address.	Term Expires.
A. W. Mahon.....	Member Ex-Of.	Helena.....	Mar. 7, 1915
Geo. R. Metlen.....	Member & Sec.	Helena.....	April 1, 1917
L. D. Conklin.....	Member Ex-Of.	Bozeman.....	

## FORESTRY BOARD.

Name.	Office.	Term Expires.
Sidney Miller.....	Chairman.....	Apr. 1, 1917
Chas. A. Whipple.....	Member.....	Aug. 17, 1917
John P. VanHook.....	Secretary.....	Mar. 1, 1918

## CONTEST BOARD OF STATE LAND OFFICE.

Sidney Miller.....	Chairman.....	Mar. 20, 1917
C. A. Whipple.....	Member.....	Aug. 16, 1917
A. W. Mahon.....	Member.....	Mar. 7, 1915

## EXECUTIVE BOARD OF THE STATE ORPHANS' HOME.

Twin Bridges.

Waller Shobe, President.

Name.	Residence.	Term Expires.
Waller Shobe.....	Twin Bridges.....	Ex-Officio
Almon J. Wilcomb.....	Twin Bridges.....	April 19, 1915
Patrick Carney.....	Waterloo.....	April 19, 1917

## EXECUTIVE BOARD OF THE STATE REFORM SCHOOL.

Miles City.

A. C. Dorr, President

A. C. Dorr.....	Miles City.....	Ex-Officio
C. W. Butler.....	Miles City.....	April 19, 1915
A. Buchanan.....	Miles City.....	April 19, 1917

## STATE BOARD OF STOCK COMMISSIONERS.

County.	Name.	P. O. Address.
Beaverhead.....	Edward B. Roe.....	Red Rock
Big Horn.....	Gus Thompson.....	Hardin
Blaine.....	Matthew McAdams.....	Cleveland
Broadwater.....	Con. Sweeney.....	Winston
Carbon.....	Herman Kuhl.....	Luther
Cascade.....	William B. Taylor.....	Cascade
Chouteau.....	John Harris.....	Fort Benton
Custer.....	E. B. Holt.....	Miles City
Dawson.....	C. J. Murphy.....	Marco
Deer Lodge.....	E. F. Notestine.....	Stuart
Fallon.....	W. E. Wear.....	Ekalaka
Fergus.....	E. C. Abbott.....	Gilt Edge
Flathead.....	John Herman.....	Dayton
Gallatin.....	W. W. Jenny.....	Logan
Granite.....	John H. Duffy.....	Philpsburg
Hill.....	E. T. Broadwater.....	Havre
Jefferson.....	Edward Ryan.....	Boulder
Lewis and Clark.....	J. H. Burke.....	Hogan
Lincoln.....	Herman Bockman Sr.....	Libby
Madison.....	L. C. Edwards.....	Sheridan
Meagher.....	James L. Johnston.....	White Sulphur Springs
Missoula.....	John E. Cyr.....	Missoula
Musselshell.....	William Spidel.....	Roundup
Park.....	Bert Armstrong.....	Livingston
Powell.....	Joseph Toomey.....	Deer Lodge
Ravalli.....	A. S. Groff.....	Corvallis
Richland.....	H. A. Miller.....	Mona
Rosebud.....	Albert G. Brown.....	Birney
Sanders.....		
Sheridan.....	Judson D. Matkin.....	Redstone
Silver Bow.....	J. W. Kenny.....	Melrose
Stillwater.....		
Sweet Grass.....	Wallis Huidekoper.....	Wallis
Teton.....	P. H. Crossen.....	Chouteau
Valley.....	J. H. Nolan.....	Ophelm
Yellowstone.....	Charles O'Donnell.....	Billings

Vice President: E. T. Broadwater.

Secretary: D. W. Raymoned.

## STATE BOARD OF SHEEP COMMISSIONERS.

Beaverhead.....	George Edinger.....	Dillon
Big Horn.....	G. F. Corwin.....	Foster
Blaine.....	F. M. Carr.....	Cleveland
Broadwater.....	Dan B. Filson.....	Winston
Carbon.....	Charles Ingram.....	Bowler
Cascade.....	J. E. Marcum.....	Cascade
Chouteau.....	Dr. John V. Carroll.....	Fort Benton
Custer.....	James Monroe.....	Ekalaka
Dawson.....	John A. Woodson.....	Miles City
Deer Lodge.....	Robert Fisher.....	Anaconda
Fergus.....	B. C. White.....	Buffalo
Flathead.....		
Gallatin.....	John Crowley.....	Logan
Granite.....	Alex. Wight.....	Hall
Hill.....	Walter Brown.....	Box Elder
Jefferson.....	E. J. Stanley.....	Whitehall
Lewis and Clark.....	Mark H. Heaney.....	Canyon Creek
Lincoln.....	M. Kolin.....	Eureka
Madison.....	Frank Swartz.....	Twin Bridges
Meagher.....	Richard Manger.....	White Sulphur Springs
Missoula.....	J. P. McClain.....	Carlton
Musselshell.....	William V. Lewis.....	Clara
Park.....	Lester Work.....	Livingston
Powell.....	William Williams.....	Deer Lodge
Ravalli.....	W. A. McElroy.....	Hamilton
Rosebud.....	T. E. Hammond.....	Forsyth
Sanders.....	Charles Larson.....	Dixon
Sheridan.....		
Silver Bow.....	Jerry J. Flannigan.....	Butte
Stillwater.....		
Sweet Grass.....	Harvey Colt.....	Big Timber
Teton.....	James Johnson.....	Shelby
Valley.....	Gordon R. Jamieson.....	Glasgow
Yellowstone.....	Thomas Snidow.....	Billings

President: T. C. Power.

Secretary: George J. Joyce.

## EXECUTIVE BOARD OF MONTANA STATE COLLEGE.

Bozeman.

James M. Hamilton, President.

Name.	Residence.	Term Expires.
James M. Hamilton, Ch'r	Bozeman.....	Ex-Officio
J. H. Baker.....	Bozeman.....	April 19, 1915
W. S. Davidson.....	Bozeman.....	April 19, 1917

George Cox, Treasurer. George Callaway, Secretary.

## EXECUTIVE BOARD OF UNIVERSITY OF MONTANA.

Missoula.

E. B. Craighead, President.

E. B. Craighead, Ch'r'm'	Missoula.....	Ex-Officio
J. M. Keith.....	Missoula.....	April 19, 1915
J. H. T. Ryman.....	Missoula.....	April 19, 1917

J. D. Dunlop, Secretary.

## EXECUTIVE BOARD OF MONTANA STATE NORMAL SCHOOL.

Dillon.

Joseph E. Monroe, President.

Joseph E. Monroe, Chairman and Treas...	Dillon.....	Ex-Officio
R. R. Rathbone.....	Dillon.....	April 19, 1915
R. W. Boone.....	Dillon.....	April 19, 1917

## EXECUTIVE BOARD OF THE STATE SCHOOL OF MINES.

Butte.

C. H. Bowman, President.

C. H. Bowman.....	Butte.....	Ex-Officio
B. H. Dunshee.....	Butte.....	April 19, 1915
Oscar Rohn.....	Butte.....	April 19, 1917

## EXECUTIVE BOARD OF MONTANA SCHOOL FOR THE DEAF AND THE BLIND.

Boulder.

H. J. Menzemer, President.

H. J. Menzemer (Ch'r'm'n)	Boulder.....	Ex-Officio
M. H. Parker.....	Boulder.....	April 19, 1915
L. Q. Skelton.....	Boulder.....	April 19, 1917

## DISTRICT JUDGES.

District.	Judge.	Chambers.	Counties.
First.....	J. M. Clements (D)....	Helena.....	Lewis & Clark
First.....	J. Miller Smith (R)...	Helena.....	Lewis & Clark
Second.....	John B. McClerman (D)	Butte.....	Silver Bow
Second.....	Michael Dolan (D)....	Butte.....	Silver Bow
Second.....	Jeremiah J. Lynch (D)	Butte.....	Silver Bow
Third.....	George B. Winston (R)	Anaconda...	Deer Lodge, Granite, Powell
Fourth.....	Asa L. Duncan (D)....	Missoula.....	Missoula, Ravalli, Sanders
Fourth.....	R. Lee McCulloch (D)..	Hamilton....	Missoula, Ravalli, Sanders
Fourth.....	Theodore Lentz (I)...	Thompson....	Missoula, Ravalli, Sanders
Fifth.....	Jos. B. Poindexter (D).	Dillon.....	Beaverhead, Jefferson, Madison
Fifth.....	William A. Clark (D).	Virginia City	Beaverhead, Jefferson, Madison
Sixth.....	A. P. Stark (R).....	Livingston...	Park, Sweet Grass
Seventh.....	C. C. Hurley (D).....	Miles City...	Custer, Dawson
Eighth.....	J. B. Leslie (D).....	Great Falls..	Cascade, Teton
Eighth.....	H. H. Ewing (D).....	Great Falls..	Cascade, Teton
Ninth.....	Ben B. Law (D).....	Bozeman.....	Gallatin
Tenth.....	Roy E. Ayers (D).....	Lewistown....	Fergus
Eleventh...	J. E. Erickson (D)....	Kallispell....	Flathead, Lincoln
Twelfth....	J. W. Tattan (D)....	Fort Benton.	Blaine, Chouteau, Hill, Sheridan, Valley
Twelfth....	Frank N. Utter (P)...	Glasgow.....	Blaine, Chouteau, Hill, Sheridan, Valley
Thirteenth..	Geo. W. Pierson (D)...	Billings.....	Big Horn, Carbon, Musselshell
Thirteenth..	Charles L. Crum (R)...	Forsyth.....	Rosebud, Stillwater and Yellowstone
Fourteenth.	J. A. Matthews (D)...	Townsend....	Broadwater and Meagher

## COUNTY OFFICIALS.

County	County Seat	Class	Sheriff	Treasurer	Clerk and Recorder
Beaverhead...	Billion	5th	Daniel V. Brwin (R)	Fred Rife (D)	Jay S. Baker (R)
Big Horn...	Hardin	6th	Dewey Riddle (R)	Walter Hammer (R)	Robert P. Ross (D)
Blaine...	Chinook	6th	James Buckley (D)	L. T. Bateman (Pro)	Vernon Butler (Pro)
Bradwater...	Townsend	7th	Chas. B. Doggett (D)	Gus E. Pool (D)	Wm. G. Ragen (D)
Carbon...	Red Lodge	5th	N. H. Gebo (R)	W. S. Good (D)	J. E. Deegan (R)
Cascade...	Great Falls	2d	Louis H. Kommers (I)	Lee Dennis (R)	John E. Moran (R)
Chouteau...	Fort Benton	5th	L. M. Rogers (D)	Christopher Wilson (D)	L. M. Bond (R)
Custer...	Miles City	3d	Austin B. Middleton (I)	Thomas Wear (D)	J. H. Bohling Jr. (R)
Dawson...	Glendive	5th	George Twibble Jr. (R)	J. H. Chappell (D)	L. L. Wyman (R)
Deer Lodge...	Anaconda	5th	B. N. Bryan (R)	J. H. Murphy (D)	R. L. Reardon (D)
Fallon...	Ekalaka	7th	M. E. Jones (D)	E. F. Lentz (D)	F. C. Bunn (R)
Fergus...	Lewistown	3d	Firmin Tullock (D)	E. G. Poland (D)	F. R. Cunningham (D)
Flathead...	Kallispell	4th	J. H. Metcalf (D)	John R. Thompson (Pro)	E. J. Green (Pro)
Gallatin...	Bozeman	3d	D. E. Gray (R)	Charles S. Ruffner (D)	E. H. Schumacher (R)
Granite...	Phillipsburg	7th	D. A. McLeod (D)	T. N. Brogan (D)	E. P. Ballard (D)
Hill...	Havre	7th	H. E. Loranger (D)	R. H. Fuller (R)	John H. Devine (D)
Jefferson...	Boulder	6th	P. J. Manning (D)	Con Smith (D)	H. R. Houghton (R)
Lewis & Clark...	Helena	2d	Rolla Duncan (R)	Emanuel Fischl (D)	A. J. Duncan (D)
Lincoln...	Libby	6th	Waverly L. Brown (D)	Wm. A. Raymond (R)	Louis G. Klenek (R)
Madison...	Virginia City	6th	Elijah Adams (D)	Geo. E. Gohn (R)	W. H. Thomas (R)
Meagher...	White Sul Spgs	5th	Geo. B. Nagues (R)	Oscar Skeen (R)	Geo. Fowle (D)
Mineral...	Superior	7th	A. F. Klugman (Ind)	O. J. Lien (Ind)	J. D. Dwyer (Ind)
Missoula...	Missoula	3d	E. J. Whitaker (Soc)	E. H. McCarthy (D)	W. J. Babington (D)
Musselshell...	Roundup	5th	J. L. Fisco (D)	Elmer B. Carter (R)	Fred E. Renshaw (R)
Park...	Livingston	5th	A. S. Robertson (R)	John C. Daniels (R)	Chas. A. Burg (R)
Powell...	Deer Lodge	6th	J. E. Neville (D)	George V. Davis (R)	Daniel B. Hertz Jr. (D)
Ravall...	Hamilton	6th	B. S. Chaffin (Pro)	H. L. Hart (R)	F. E. Robbins (Pro)
Richland...	Slidley	7th	Geo. W. Arkie (D)	M. J. Rooney (R)	Edmund Bronson (R)
Rosebud...	Forstyth	4th	Henry Grierson (R)	Harry Butterfield (R)	Robert J. Cole (R)
Sanders...	Thompson	6th	Jos. L. Hartman (R)	E. L. Stackhouse (R)	Ben H. Johnson (D)
Sheridan...	Plentywood	5th	J. B. Duggan (D)	R. C. Stanfield (D)	Dave Kehoe (D)
Silver Bow...	Butte	1st	Chas. S. Henderson (R)	R. M. Fry (D)	Lloyd B. Barley (R)
Stillwater...	Columbus	6th	Robert L. Guthrie (D)	J. M. Jarrett (R)	J. E. Cameron (Pro)
Sweet Grass...	Big Timber	7th	H. G. Lyons (D)	R. D. Forrest (R)	E. C. Garrett (R)
Teton...	Chouteau	4th	William Miller (D)	E. E. Moody (D)	A. N. Foss (R)
Toole...	Shelby	7th	J. S. Alsop (R)	Truman M. Patten (R)	W. B. Shoemaker (R)
Valley...	Glasgow	6th	C. W. Powell (R)	J. M. Grandy (R)	J. R. Chappell (R)
Wibaux...	Wibaux	7th	J. W. Jones (D)	J. M. Inabnit (Pro)	F. E. Williams (R)
Yellowstone...	Billings	3d	S. W. Matlock (D)		

## COUNTY OFFICIALS (CONTINUED).

County	Auditor	Assessor	Clerk of District Court	Attorney
Beaverhead...	Robt. W. Boone (D)	B. W. Emerick (D)	Charles W. Conger (R)	R. S. Stephanson (R)
Big Horn...		A. H. Roush (D)	Frank A. Nolan	H. W. Bunston (Pro)
Blaine...		Andrew Christensen	A. W. Ziebarth (D)	D. J. Sias Jr. (D)
Broadwater...		M. L. Cavanaugh (D)	Fred Bubser (D)	Chas. P. Cotter (R)
Carbon...	F. A. Hauswald (R)	Frank McCleary (D)	H. A. Simmons (R)	R. G. Wiggenhorn (R)
Cascade...	F. C. Roosevelt (R)	John L. Gillin Jr. (D)	George Harper (R)	Geo. A. Judson (D)
Chouteau...	Andrew Elderman (D)	J. E. Vaughn (D)	G. D. Patterson (R)	H. F. Miller (R)
Custer...	A. H. Sverdfiger (Pro)	Geo. E. Robbins (Pro)	Frank Ramsey (D)	Frank Hunter (D)
Dawson...	Leonard Guy (D)	Chas. E. Bean (R)	Frank Parrett (R)	S. E. Felt (R)
Deer Lodge...	Frank Clinton (D)	H. S. Neal (R)	M. L. McDermott (D)	John W. James (R)
Fallon...	G. G. Grant (D)	C. E. Hughes (D)	Ralph Keener (R)	C. J. Dousman (D)
Fergus...	E. F. Durnen (D)	C. W. Riddick (R)	Jas. L. Martin (D)	Frank A. Wright (R)
Flathead...	C. J. McAllister (Pro)	David Greig (D)	Sam D. McNeely (Pro)	T. A. Thompson (D)
Gallatin...	Clark Wright (R)	S. N. Cowan (D)	W. L. Hays (D)	E. A. Bolinger (R)
Granite...		W. E. Albright (D)	Geo. W. Glass (Pro)	D. M. Durfee (D)
Hill...		Jas. H. Fenton (D)	W. B. Hundley (D)	L. V. Beaulieu (D)
Jefferson...		Jas. H. Mitchell (D)	F. L. Reece (R)	J. E. Kelly (D)
Lewis & Clark...	A. G. Clarke (D)	C. H. Martien (D)	Timothy Miller (D)	A. H. McConnell (D)
Lincoln...		John D. Weir (D)	Matt Carey (D)	Jas. M. Blackford (D)
Madison...		H. C. Vinson (D)	Geo. L. Dean (Ind)	Geo. R. Allen (R)
Meagher...	J. W. Anderson (D)	Jos. A. Mayo (Ind)	F. H. Mayn (R)	C. A. Linn (R)
Mineral...		D. B. Currie (D)	Geo. L. Deane (Ind)	W. L. Hyde (Ind)
Missoula...	F. J. Murray (Pro)	K. E. Park (D)	Thos. P. Conlon (D)	F. C. Webster (R)
Musselshell...	Rae R. Newton (R)	Geo. Colpitts (R)	W. G. Jarrett (R)	G. J. Jeffries (R)
Park...	Fred Mjelde (D)	Martin Gleeson (D)	Wm. Pethybridge (R)	Frank Arnold (R)
Powell...		R. B. Keyes (Pro)	Robt. Midtlyng (D)	T. F. Shea (R)
Ravalli...		John J. Carey (D)	J. T. Coughenour Jr. (Pro)	E. C. Kurtz (R)
Richland...	W. E. Clark (R)	O. B. Jackson (R)	Guy L. Rood (Pro)	Herbert H. Hoar (Pro)
Rosebud...		Robert Iff (R)	D. J. Muri (D)	B. D. Tull (R)
Sanders...		H. B. Hill (R)	Wm. Strom (D)	Wade R. Parks (D)
Sheridan...	J. F. Redmond (Pro)	H. S. Sullivan (D)	L. J. Onstad (D)	Paul Babcock (R)
Silver Bow...	R. J. Campana (D)	A. C. Anderson (D)	John J. Foley (D)	M. F. Canning (D)
Stillwater...		D. J. Walvoord (R)	G. E. Iverson (Pro)	P. R. Helly (R)
Sweet Grass...		J. L. Lundgren (R)	H. C. Pound (Pro)	E. S. Helly (R)
Teton...	C. J. Smith (R)	E. B. Toole (D)	James Gibson (R)	John J. Steiner (D)
Toole...		E. B. Cottrell (R)	Perry J. Day (D)	John I. Greene (D)
Troop...		B. H. Cottrell (R)	Waiter Shanley (Pro)	J. G. Henderson (D)
Valley...		Geo. W. James (Pro)	A. E. Jeffers (Soc)	Geo. W. Ruricorn (D)
Wibaux...	J. F. Sleeper (R)	A. P. Smith (R)	L. T. Jones (R)	E. F. Fisher (R)
Yellowstone...				James L. Davis (D)

## COUNTY OFFICIALS (CONTINUED).

County	Superintendent of Schools	Coroner	Surveyor	Commissioner—Two Years
Beaverhead...	Mayne French (D)	L. C. Ford (R)	W. T. George (R)	Charles W. Francis (R)
Big Horn...	C. Bernice Myers (D)	O. S. Haverfield	J. E. Graham (D)	B. F. Hertzler
Blaine...	Margaret Vanden	W. H. Reed (Pro)	A. G. Middleton (Pro)	Thos. Dowen (D)
Broadwater...	Lizzie Barker (R)	J. S. Connors (D)	Louis K. Pool (D)	Hugh Broderick (D)
Carbon...	Nora L. Hogan (R)	R. B. Mooney (R)	A. B. Cooley (R)	A. A. Ellis (R)
Cascade...	Annie A. McAnelly (D)	W. D. Madden (D)	Ben C. Johnston (R)	Thos. Curry (R)
Chouteau...	May G. Flanagan (R)	W. F. Wilford (R)	J. S. Culbertson (D)	F. H. McGowan (D)
Custer...	Emma Fritz (Pro)	H. C. Plimpton (Pro)	H. E. Fearnall (Pro)	Charles Daly (R)
Dawson...	Camilla Osborne (R)	M. G. Danskin (D)	R. T. Hurdle (R)	F. J. Winkler (R)
Deer Lodge...	Mabel Sharp (D)	M. P. Mahoney (D)	E. A. Cralle (D)	B. J. Mahan (R)
Fallon...	Annette Leonard (R)	E. O. Colvin (R)	H. L. Cory (D)	T. A. Fitzsimmons (R)
Fergus...	Lella M. Baker (D)	Geo. R. Creel (Pro)	H. E. Miller (R)	Joseph Gallagher (R)
Flathead...	Mary Eckstein (Pro)	J. E. Wagener (Pro)	A. L. Saunders (Pro)	Henry Good (D)
Gallatin...	Ida W. Davis (D)	Roy E. Seitz (R)	Fred M. Brown (R)	Chas. Callaghan (D)
Granite...	L. T. Irvine (R)	J. J. Carmichael (R)	E. B. Patten (D)	F. A. Beley (R)
Jefferson...	Laura G. Lovett (D)	John A. Sanderson (R)	John F. Daoust (R)	Ever Nielsen (R)
Lewis & Clark...	Mabel Haynes (R)	A. Less (D)	Geo. E. Baker (R)	A. J. McKay (R)
Lincoln...	Eva Harrington (D)	E. A. Johnston (D)	P. G. Poore (D)	C. C. Covington (D)
Madison...	Ella E. Hess (R)	H. M. Gompf (D)	I. G. Teirault (Ind)	F. P. Garey (R)
Mineral...	Phebe C. Williams (R)	Louis Romey (R)	W. W. Payne (D)	C. W. Chowling (D)
Meagher...	Mary J. Davies (R)	J. D. Shorey (R)	E. R. Laust (R)	F. P. Edwards (R)
Missoula...	M. Leola Wright (Ind)	Frank Gareau (Ind)	Ray B. Leib (Ind)	Eugene Keesey (Ind)
Musselshell...	Mary P. Shull (R)	A. M. Lucy (R)	F. T. Stoddard (R)	Daniel McQuarrie (R)
Park...	Minnie Ferguson (D)	Thos. O'Connor (R)	Ray Bushnell (R)	C. M. Jacobs (D)
Powell...	Maude E. Brown (D)	M. J. Walsh (D)	Chas. S. Sackett (R)	Edgar Gibson (R)
Ravalli...	Emma Johnson (R)	O. B. Roberts (R)	Lee Williams (R)	Geo. W. Thompson
Richland...	Bethel Irwin (Pro)	R. W. Getty (Pro)	E. H. Blakeslee (R)	N. J. Tillman (Pro)
Rosebud...	Bell Hoyt (R)	G. E. Armour (Pro)	O. J. Lacy (Pro)	O. H. Kronkright (D)
Sanders...	Fay Alderson (D)	F. M. Booth (R)	C. B. Taber (R)	J. W. Miller (R)
Sheridan...	Grace D. Fox (R)	E. T. McCafferty (D)	John Brauer (R)	P. J. Ele (Pro)
Silver Bow...	Irene Murphy (Pro)	M. M. Johnson (D)	C. E. Corvett (Pro)	G. J. Stromme (R)
Stillwater...	Julia Shea (D)	Aeneas Lane (D)	Chas. M. Feeney (D)	Chas. Mears (D)
Sweet Grass...	G. E. Sylvester (D)	Gustave Simmons (D)	Ralph W. Barr (R)	C. M. Rehn (R)
Teton...	Inga Solberg (R)	J. A. Lowry (R)	B. J. Kleinheselink (R)	Martin Jacobson (R)
Toole...	Nellie R. Brown (D)	W. A. Huibush (R)	Colin N. Ward (R)	Geo. A. Norman (D)
Valley...	M. G. Valentine (R)	C. D. Riddle (D)	R. V. Buckner (R)	Carl J. Anderson (R)
Wibaux...	Alene McGregor (D)	C. E. Peterson (Pro)	W. H. Mann (R)	Paul S. Hede (D)
Yellowstone...	Maude B. Wills (R)	H. J. Kuch (R)	A. L. Hurlbut (R)	Marce Sorenson (D)
	Louise J. Willson (Pro)	G. H. Smith (R)	Arthur Boyer (D)	

## COUNTY OFFICIALS (CONTINUED).

County	Commissioner—Four Years	Commissioner—Six Years	Public Administrator
Beaverhead...	Theodore Nelson (D)	D. McKnight (D)	Quilman Owen (D)
Big Horn.....	Dan Sullivan	H. Howman (D)	Chas. W. Doane (R)
Blaine.....	C. A. Ross (Pro)	John W. Acher (D)	Fred Prosser (D)
Broadwater...	A. J. Williams (R)	Emil Kieckbusch (R)	Charles Hume (D)
Carbon.....	M. J. Roysdon (R)	Marlin McDonough (D)	Wm. R. Lantz (R)
Cascade.....	K. B. McIver (D)	W. F. Kester (D)	Thomas Ashton (R)
Chouteau.....	G. C. Ihmsen (R)	H. A. Gray (D)	W. O. Dexter (R)
Custer.....	Robert Yokley (D)	J. R. McKay (Pro)	Fred Savage (R)
Dawson.....	Andrew Larson (D)	H. V. Robinson (R)	E. C. Andrews (R)
Deer Lodge...	D. R. Roach (D)	W. L. Collins (R)	R. B. Crosswhite (D)
Fallon.....	C. L. Wood (D)	James Pepper (Pro)	E. A. Mulkey (D)
Fergus.....	C. D. Allen (D)	D. Barney (D)	C. W. Buntin (D)
Flathead.....	John Laux (D)	Andrew Swaney (Pro)	William Calbick (Pro)
Gallatin.....	A. S. Huffman (D)	Nelson Story Jr. (R)	W. B. Burket (R)
Granite.....	J. T. Berthelote (R)	S. M. S. Hughes	F. M. Freyschlag
Jefferson.....	Lees Taylor (D)	Abe Crosson (R)	A. F. Lamey (D)
Lewis & Clark.	W. M. Biggs (D)	John Telly (D)	James Flaherty (D)
Lincoln.....	P. D. Pratt (D)	J. M. Roberts (D)	William Taylor (D)
Madison.....	B. G. Paige (D)	Peter Grant (D)	A. V. Howard (R)
Meagher.....	F. S. Webster (R)	Frank Smith (R)	L. A. Dudley (R)
Mineral.....	F. J. Luedke (Ind)	Wm. F. Thorn (Ind)	E. J. Twohey (D)
Missoula.....	J. J. Flynn (D)	G. F. Peterson (R)	D. G. Wilkinson (Ind)
Musselshell...	Olaf Jensvold (R)	Harry Barr (R)	F. R. Angevine (D)
Park.....	Frank Beley (D)	C. S. Heferlin (R)	E. A. J. Jesse (R)
Powell.....	W. O. Wyckoff	J. E. Manley (R)	Dan Frazer (D)
Ravalli.....	C. W. Ward (D)	R. L. Harper (Pro)	F. H. Cobb (R)
Richland.....	Frank Hardy (D)	J. H. Bowden (R)	J. N. Taylor (R)
Rosebud.....	J. M. Williams (R)	R. W. Blakesley (R)	C. L. Brattin (Pro)
Sanders.....	C. W. Powell (R)	Chas. Prongua (R)	Arthur Bland (R)
Sheridan.....	F. A. Weinrich (Pro)	O. E. Timmons (D)	G. W. Angst (R)
Stillwater.....	Barney McGrade (D)	J. C. Hood (R)	W. A. Wheeler (Soc)
Sweet Grass...	B. F. Harris (R)	S. G. Clark (Pro)	T. J. Harrington (D)
Teton.....	Henry Radcliffe (D)	E. A. Savory (D)	Wm. Witt (D)
Toole.....	P. W. Laughlin (Soc)	L. C. Marsh (R)	J. G. Ellingson (R)
Valley.....	C. W. Baylor (D)	P. A. West (R)	J. R. Gleason (R)
Wibaux.....	Arthur Barclay (R)	C. O. Oliver (D)	J. W. Williamson (R)
Yellowstone...	J. S. Todd (R)	W. C. Renwick (Pro)	David Watson (D)
			E. C. Slyter (Soc)
			A. J. Thorine (R)

---

---

**REPORT OF INSPECTOR OF QUARTZ  
MINES**

---

---



# Report of the Inspector of Quartz Mines

Helena, Montana, December 1, 1914.

Honorable S. V. Stewart,  
Governor of Montana,  
Helena, Montana.

Sir:

I have the honor to submit herewith my annual report, the same being for the fiscal year ending November 30, 1914.

The total value of the mineral production of the state for the year 1913 was \$61,900,546, a decrease of \$2,854,067 from that of 1912. The decrease noted was in gold and copper production, while the value of silver, lead and zinc was largely increased. The production of copper, silver and gold for 1913 was as follows:

Copper, 287,828,699 pounds, valued at .....	\$44,613,448
Silver, 13,819,201 fine ounces, valued at .....	8,346,797
Gold, 168,994 fine ounces, valued at .....	3,493,432

The value of the lead produced during 1913 was \$481,176.00, and the zinc was valued at \$4,965,693.00.

The mining industry is one of the most important of this country's industries. Sixty-five per cent of the freight traffic of the railroads comes from mineral products. The total production of American mines and metallurgical plants is about \$4,600,000,000 per annum, and the number of laborers engaged is about 2,300,000, making a contribution of about \$2,000 per man employed per annum to the wealth of the country. The total production from farms and ranches in agricultural products and livestock is \$9,500,000,000 per annum, and about 12,000,000 men are employed, making the average contribution to the national wealth, of each ranch and farm employe, about \$800 per annum, or only forty per cent as much as is derived from the services of each mine and smelter employe. It has been well said that farms properly attended to will last forever; water powers will endure indefinitely; forests can be regrown; but a mine is simply an exhaustible and definite amount of material which, once exhausted, is gone forever, and the only way to perpetuate the mining industry is by the discovery of more mines.

The United States, with six per cent of the area of the world and a little more than six per cent of the population, is now producing 36 per cent of its entire mineral production. We often feel proud of our great mineral production, but do not stop to consider that we are rapidly exhausting our available supply of minerals, and unless we take steps to discover more mines and to foster and encourage the mining industry our supply will eventually be exhausted. At present the federal appropriations for the encouragement of agriculture amount to 37 cents per capita of our population per annum, while the federal appropriations for the encouragement of mining, geological surveys, mining

schools, bureaus of mines, et cetera, amount to less than one cent per capita of our population. Thus we are encouraging an industry which is practically everlasting, and doing almost nothing for one that is perishable, but vitally important.

The present mining laws of the country do not encourage the prospector, and the mining men of the country owe it to themselves to impress upon congress and the people the necessity of the revision of our present laws in such a way as to make conditions more favorable for the discovery of mines. The situation in Colorado illustrates the result of the exhaustion of mines. In 1900 there were employed in the metal mines of that state about 41,000 men, while in 1910 this number had been reduced to about 19,000, and the falling off has been marked during the past four years. The commercial bodies of that state have done what they can to encourage mining in spite of the defective national laws, but conditions do not improve and the mining industry throughout the entire west is in very much the same general condition as is that of Colorado. There are several bills now pending in congress having in view the betterment of these conditions, and one of them has now passed the Senate and is pending, with other measures, in the House. It is hoped that the people of Montana will urge upon their representatives in Congress the necessity of immediate action, to the end that the law appointing a commission to revise the mining laws be passed, and as this bill will doubtless be considered at an early date it is imperative that such recommendations should be forwarded at once.

The president of a large national bank in Chicago was under criticism on account of his investments in gold and copper properties in the Rocky Mountain region, and made the following reply to his critics:

"Throughout the Rocky Mountains, ages ago, God Almighty built stronger vaults in His granite banks than we have in ours. He filled His vaults with gold, silver and copper. He gave the prospector knowledge and insight, and guided him on his way to the door of the vaults He had built. The federal government handed him title to all therein. It was not a crime but a virtue to enter. With drill, pick and shovel the prospectors have broken the combination locks and entered. But for Him our notes of issue would be as the stump-tail currency of 1857. But for Him this government of ours would be bankrupt. Mines will be producing millions in gold, silver and copper in that future day when national banks are unknown. A mine contains a crop already raised, harvested and on deposit for you to check against at your pleasure. The wealth gathered from the mines immortalized King Solomon. Mining made Great Britain the world's commercial dictator. Mining has made the United States the richest county in the world, and has transformed more poor men into millionaires and raised them to positions of honor and trust than any other business. Mining has scored less than 35 per cent of failures shown in the general merchandising business of the United States. Without the products of the mines you would have neither a frying pan, a spoon, a hat pin nor a monetary circulating medium."

It is interesting to note that in the strong vaults of Montana are stored countless millions of wealth. From 1904 to 1913 the metal production of this state was \$548,046,314, an average of over \$1,000 for every man, woman and child within its borders, and the work has only just begun. The "vaults built by God Almighty" still contain vastly more wealth than has yet been produced or even indicated by the work already done.

There are some wonderful showings in the different mining districts, and when conditions right themselves there is no doubt that capital will be invested in the different properties that are now idle and have been during the past year. If more money were used in the development of mines before the erection of large mills and concentrators, there would be fewer failures to record, and furthermore, if the money raised were used for legitimate mining instead of stock jobbing there would be more encouragement for people willing to risk their money in mining prospects.

There are a great many mines in the state, and especially among the silver properties, that have been practically worked out above water level, and it will be necessary to install plants able to handle the water, and this means time and capital. There is no reason why some of these mines should not become valuable producers, and it seems more than likely that within the next year or so, electric power will be available in nearly all the mining districts, affording a power cheaper and more efficient than any other.

It has been a pleasure to visit the different mining districts in the state and to see how willing the different companies and their managers are to better the conditions of mining. They are willing to comply with all reasonable recommendations, and there seems to be a tendency among all operators to put their mines in the best possible condition. They realize that if everything pertaining to work is up to date they will get it back in the labor of the men employed. A mine should always be kept in the best possible shape. There is only one way to do things, and that is the right way. When the men employed see that those in charge mean to do the right thing they are willing to help.

From the strides taken by the state in the way of zinc production, it will not be long before Montana will be one of the largest zinc-producing states in the Union. There have been wonderful showings made in the mining of zinc, especially in Silver Bow County, which at present has one of the largest mines of its kind operating in this country, yet as far as the zinc development is concerned, it has only begun in the Butte district. There are other large mines in the state that have large deposits of ore of this character that are not working at the present, and I look for a large amount of work to be done in the way of mining this ore in the next year or so. The mills installed by the Butte & Superior and the Clark people are beyond the experimental stage. The Butte & Superior has developed into the largest zinc mine in the world, employing 1,000 men daily. From this mine is hoisted about 1,100 tons per day, and the property is on a paying basis. The

increase in zinc for 1913 was 61,754,202 pounds over the year 1912.

The installing of telephone systems in all of the large mines of Butte is one of the most important improvements pertaining to the mines of the state. This means a saving of many unnecessary trips to the surface, as every department has its own connection. The 'phones are in constant use during working hours, and on the 1,200 foot level of the Leonard mine a booth is installed so that connections can be secured with any point in the state.

One of the principal improvements for the year 1914 is the installing of Ram Water liner drills, of which there are now in use about 150 in the Butte district. Having visited the leading mines in Arizona during the past winter, I have had an opportunity to investigate the merits of these drills. They are used almost exclusively in the south. Their main advantage is that they do away with all dust that was caused by the use of the old piston drill, which, it was claimed, was the main cause of miner's consumption. With the new device the machine drills all holes wet, doing away with all the dust caused by the old type of machine drilling dry holes. Most of the Butte mines have water piped through the stopes so it can be used in the stopes and raises the same as on the sill floors. This is going to do more for the miners in benefiting working conditions in the mines than anything that has transpired in years. These drills work twice as fast as the old machines, and the holes in the stopes are drilled flatter and deeper, leaving the back much safer than the Murphy stope drill, where all holes drilled are uppers, causing the miner to stand almost directly under the ground he is drilling, making it dangerous and at the same time compelling him to breathe more or less dust.

The Anaconda Copper Mining company has ordered a car of powder known as sabulite, for testing purposes. Several demonstrations have been made, proving that the new powder has the same strength as the powder now in use in the mines of Montana. The advantage of this new explosive is that it is impossible to explode it without a primer in the stick of powder, as when accidentally picking or drilling into a missed hole. Tests made show that one can run hot pieces of iron through or drop a hammer on this powder without the least danger. In the year 1914 there were about 6,200,000 pounds of powder used in Montana, and practically handled by 12,000 men, with only four accidents, two fatal and two non-fatal—a wonderful record when one realizes the danger in handling this amount of explosive.

The mines of the Anaconda Copper Mining company have one general level known as the 2,800 foot level. This will include the following mines at these depths:

Leonard .....	2,400
West Stewart .....	2,500
Original .....	2,300
Diamond .....	2,800
Tramway .....	2,400
St. Lawrence .....	2,600
Anaconda .....	2,600

This will be the drain level, from which two general pumping plants are operated, one located at the High Ore, handling 1,800 gallons per minute, and one at the Leonard, handling 1,200 gallons per minute. This is wonderful when it is realized that 3,000 gallons per minute is all the water pumped by the Anaconda Copper Mining company from nearly all of its properties.

One of the most important money-saving improvements in the Butte district is the utilization of electric power in all branches. It is much cheaper than steam power and does away with the great amount of heat caused by using steam. Engines in the following mines have all been changed from steam to air: Diamond, High Ore, Original, West Gray Rock, Berkley, Tramway, Mountain View, Pennsylvania, Leonard and West Colusa. It is now only a matter of a short time when all engines at the mines will be run by air.

The Anaconda Copper Mining company has also completed an improvement at its Butte properties that will mean much to the miners of the district in the future by practically doubling the capacity of the ore bins at the mines. When this work is completed it will be possible to place 50,000 tons of ore in the bins to await shipment to the smelters at Great Falls and Anaconda. There are times during the extreme cold weather when it is impossible to unload ore at the smelters on account of freezing. This results in the shutting off of the supply that the smelters could unload and the ore soon piles up in the mine bins to their capacity, with nothing to do but shut down the mines. The shutting down and starting again is a matter of big expense, so the enlargement of the bins was decided on. At the Washoe smelters a large extension has been made to the storage bins so that considerable ore can be handled there.

The greatest problem to be considered in the great depths is the matter of proper ventilation. From my observation of the different mines I am of the opinion that the correct way of getting good air into mines is by air shafts separated entirely from the hoisting shaft and keeping these air connections as deep as the main working shaft. Two separate connections to the bottom level of the mine will secure circulation that cannot be secured by any other means. Any one familiar with the working of mines knows it is impossible to ventilate a mine if the air shaft is not kept as deep as the working shaft. At various mines where connections by means of air and development shafts have been made to the lowest level, the ventilation is all that could be expected. I believe that every mine should have its own air shaft and not depend upon connections with other mines. Air shafts should be sunk or raised in solid ground away from mine workings, and connections made with air shafts by cross-cutting. By placing doors in these cross cuts it is possible to convey air through any part of the mine. In some instances, connections made with other mine workings, as far as ventilation is concerned, are a detriment rather than a benefit, as the air so received may have become impure for use in other workings.

Connections with other properties are necessary for the safety of the men. While most mines have several escapement shafts, it is not always possible to have men located so that they are out of danger.

If these connections are considered detrimental to other properties, the connections can be closed by doors to be used in case of necessity. All companies realize that it is impossible to get the same amount of work out of men when the air is poor, and therefore it is to their advantage to secure the best possible ventilation. The cost of making proper air connections is soon made up in labor. The large companies are installing electric fans in nearly all their air shafts, with good results.

The temperature in the mines in Arizona is as high as that of the Montana mines, in some instances much higher, and most of the mines are not over one-third as deep as the Butte mines. At Jerome the temperature is from 75 to 82 degrees, at Bisbee from 81 to 86 degrees in working places. At the Calumet & Arizona mine junction shaft it was from 82 to 86 degrees; at the Globe Old Dominion mine it was from 78 to 90 degrees; at the Ray Consolidated mine it was from 80 to 86; Miami from 80 to 85. They are installing mechanical ventilation in the way of fans which will benefit the air of the mines wonderfully. This shows what has been done in the way of ventilation in Montana, where the mines are three times as deep and the general average temperature is greatly less.

The High Ore shaft has a total depth of 3,400 feet, being the deepest shaft in the state, and as such shows the maintenance of values with depth. I personally saw some samples of high grade ore that came from the 3,200 depth, proving that the limit of the ore deposit in the Butte district is unknown. Many mining men have predicted various things for Butte. They have been taking out ore there for forty years, and if present indications count for anything they will be taking out ore for forty years to come, and more.

Every effort is being made in the mines of the state for the prevention of accidents. As a sample of the precautions which are being taken, I quote the following from the rules recently issued by the Anaconda Copper Mining company.

### Rules For the Prevention of Accidents.

Experience has proven that a great many accidents are caused from drinking intoxicating liquors. Never go to work after drinking liquor, and if you must drink, stay at home.

The Anaconda Copper Mining Company is particularly desirous of protecting its employees from accidents and safeguarding their health, and wishes to impress upon each and every employee that safety is its first consideration. The best materials and best approved appliances, necessary to carry on the work, are provided, and no employee should take any risk with faulty material or dangerous apparatus.

Each man should watch for his own safety and for the safety of fellow-workmen. Accidents happen at unexpected times and places and only by watchfulness and close attention to rules can good results be obtained. It is up to the employee to avoid heedlessness, and to report any feature which he thinks affects the safety of himself and others.

#### WHEN IN DOUBT PLAY SAFE.

In general, do not turn on electricity, steam, air, or water, or do not set in motion any machinery, without first noting whether or not anyone is in position to be injured by your action.

**GET THE SAFETY HABIT.**

The more experienced should advise and protect others, by not permitting them to endanger themselves, and by making conditions safe for them. This Company invites suggestions from its employees that will tend to further safety.

For the prevention of health and the prevention of accidents, we herewith set forth the following rules:

**SANITATION.**

Toilet-cars provided on the different levels shall be kept in a sanitary condition and used by the men. Refuse from buckets, carbide lamps, etc., shall not be thrown around. Employees shall not enter a drift, stope or other workings, where there is danger from powder smoke, gas or bad air without instructions. Employees shall use great care in keeping all underground ventilation doors closed.

**EXITS.**

Men shall learn the various exits and raises or winzes, connecting the level on which they are employed with other levels|

**LIGHTS.**

Never travel without sufficient light and never leave your candle, lamp or torch near timber or other inflammable material.

**SHAFTS AND CAGES.**

The cage-men and top-men shall keep a careful watch over the cages during their shifts' work and immediately report all defects and have them repaired before continuing their work. No person shall ride upon a cage loaded with tools, timber, powder or other material, except for the purpose of assisting in passing these through the shaft. No person shall ride on a cage loaded with rock or ore. No person shall ride between cage and skip. When hoisting or lowering machines, tools, timbers or other material in the shaft, the ends, if projecting above the top of the cage or bucket shall be securely lashed. Be sure the safety doors are closed when riding in the shaft. Crowding or "fooling" around the shaft, cages or mine workings is strictly prohibited. If any employee drops any material or tools down the shaft he shall immediately report same so the shaft may be inspected before continuing the regular work. Do not remain close to an open shaft on underground stations.

**ELECTRICIANS.**

Electricians shall instruct the various pump-men, fan-men and motor-men in operation and care of their electrical machinery, and caution men not to handle electric wires while standing in wet places without extra precaution to obtain insulation from the ground.

**ELECTRIC HAULAGE.**

Where electrical haulage is used be careful not to come in contact with trolley wires or connections, and do not carry tools or other materials on shoulder. No one but trainmen shall be allowed to ride on trains. Explosives shall not be carried on trains. Employees are forbidden from going between moving cars to uncouple or for other such purposes. Flying switches are prohibited. Motormen shall signal freely and slow up in coming to curves, switches or doors. They shall never start train without giving warning and should be on the alert for obstructions at all times. Don't run at unsafe speeds, but keep the trains under full control. Give switchmen time to throw switches. Wedging or blocking circuit breakers is forbidden. Do not reverse motor excepting in cases of emergency, or to avoid accident. Motormen shall have an electric light on each end of their motor at all times. They shall report any defects in their equipment to the electrician or to the foreman and have same repaired.

### EXPLOSIVES.

Use the greatest care in handling powder and caps. Never take an exposed light into a magazine. Do not leave powder or caps scattered around. Excessive force in charging holes with powder should be avoided. Tamping should be done by pressure and not by strokes. Do not use a metal tamping bar. Do not use chilled or frozen explosives. Never force a primer into a hole. Blasting caps must not be carried in pocket. Detonators or caps shall not be taken into a magazine or carried with explosives except when made into primers. No fuse for any blast shall be less than 24 inches long. Keep a reserve light in spitting fuse. Powder used in raises or places necessary to hoist or lower same with a rope shall be carried in from which access may be made to any place where blasting. Employees sacks provided for that purpose. Warning must be given in every direction, are instructed that the commission of careless acts with explosives in or about the mine workings, or failure to report same to the proper officials, will be sufficient cause for discharge. Do not fail to report all missed holes on the board provided for this purpose. If charges fail no person shall enter the place for thirty minutes. Carefully examine the face or breast for missed holes, whether reported or not, and be sure to locate unexploded powder. Never pick powder out of a missed hole, nor drill near one. Primer should be added and the charge blasted.

### MANWAYS AND CHUTES.

In going up or down manways use extreme caution and see that the ladders are safe. Defective ladders should be reported. Do not dislodge rock or other material that may injure a person below. Broken chutes will allow rock to fall down manway and should be reported. Openings to ore or waste chutes and to manways must be protected by covering or by guard rails. If necessary to remove cover from an opening see that guard is provided. Be careful when timber or supplies are being hoisted or lowered to keep from under same. Employees are forbidden to lower or throw tools, steel or other material down the manway, except where a man is stationed below. Loaders must not leave chutes until properly closed.

### RAISE-MEN AND REPAIR-MEN.

Raise-men and others when working over chutes and man-ways shall keep their floors well lagged. Your attention is taken above, and a missed step under these circumstances has caused many an accident.

### SHOVELERS.

Shovelers, be mindful of the rules regarding guard rails and grizzlies and avoid carelessness when working over said grizzlies. See that the floor or the back over you is in good shape.

### GENERAL.

Most of the accidents are caused by falling ground, and you are especially warned and requested to take the greatest care in making ground safe. On reaching your place of work, carefully examine the roof, or back and walls, and do not start regular work until all loose or drummy ground is trimmed down and made as safe as possible. Inspect the conditions of the timbering and when butt-blocks or other essential supports for the timber have fallen away, replace the same or report the conditions to the shift-boss. Do not work under a roof that it not sufficiently timbered. Where warranted use stringers. Working floor shall be securely lagged over, the lagging shall be long enough to reach half way across the caps. Report defective floors or fix them. Planks with nails protruding must not be allowed to lie around. Remove nails or bend them down. Men working above other men shall notify the men below and be careful not to drop any material without giving warning. All persons injured, however slight or serious, shall go to the hospital for treatment, as a slight cut if not properly attended to might cause blood poison. No injured person shall be allowed to return to work until given a clearance card by the hospital, showing that his wound has been properly dressed and that he is in a condition to resume work. I recommend the safety first movement installed in the Butte mines. If the above rules are enforced with the state mining laws, it will be the cause of fewer accidents.

## General Instructions to All Foremen and Shift Bosses of the Mining Department for the Prevention of Accidents.

The attitude of foremen and shift bosses toward a safe and sanitary condition is accurately reflected by the workmen. If they show a desire to have working conditions safe and precautionary rules are observed, other employees will reflect that feeling.

Neatness is recognized as an imperative factor in bringing about carefulness and the prevention of accidents, and it is expected that foremen will be constantly vigilant in not allowing rubbish to accumulate.

Have a thorough understanding of all rules and regulations. Until you know them all and are living up to them, you are not doing your full duty. Your own best interests call for a good record. See that new men are properly broken in and leave to the new man no opportunity to successfully maintain that he was unfamiliar with his surroundings or with attendant dangers. When it is observed that a man is habitually careless, or is using poor judgment, warn him and correct his methods if possible; but if these measures do not produce the desired results, discharge the man or place him where he can endanger no one.

All accidents shall be reported to the shift boss under whom the injured person is working. Shift bosses shall make a written report of all accidents. Investigate the cause of the accident. Secure names of witnesses. Question said witnesses carefully and in detail and guard against fraud. Notify relatives and friends.

It is as much the duty of those in charge to see as far as they reasonably can that men comply strictly with the rules and are properly protected in their work.

Working unsafe places cannot be entirely prohibited; but you can see that all practicable precautions are taken and that men cognizant of danger, are careful.

Shift bosses should call attention to missed fires, bad ground, condition of timbering, open chutes and manways, and have said conditions corrected immediately. Employees, particularly new men, should be instructed that no one but station tenders are permitted to ring shaft bells and notices to this effect should be posted in each station. Signal codes should be placed on each station, as well as on the surface. Manways in use should be kept free from obstructions, provided with good ladders, and safe from fall of rock. Suitable ladders or foot-ways shall be provided to connect floors in stopes and other places requiring communication in the mine. Provide sufficient lagging for flooring. Ladder-ways shall be provided in all shafts in the course of sinking to within such distance of the bottom as will secure them from damage by blasting, and from the end of such ladder-ways portable ladders shall be extended to the bottom of the shaft. Every winze, raise or incline of steeper slope than 40 degrees and deeper than 40 feet, to which men are obliged to travel shall be provided with a ladder way. The top of every shaft shall be protected by a substantial guardrail, gate or chain. Winzes or raises shall not be started in the direction line of the drift, but shall be off-set from the drift. New raises, holeing under track should be offset one set in hanging, or in perpendicular veins, one set to either side. Present raises, which holed under track, should have heavy bent rail underneath and when not in use should be securely covered with plank. Stationary lights shall be provided at all stations on the working levels and powder magazines, and at night at all working places on surface. The use of carbide lamps is recommended for spitting fuse in wet drifts. Danger of fire is very great; therefore safeguards against it must be prescribed and strictly enforced. Fire Bugs should be sent through after each shift. Magazines must be kept dry, well ventilated, and free from litter of papers, sawdust, empty boxes, etc. Don't keep explosives near any electrical conductors, and where possible detonators and powder storage places should be 100 feet apart.

All cages, together with the king-bolt and clevice-bolt shall be inspected daily by some competent person. They shall be kept in first-class condition, and all defects shall be repaired before further use. The safety-catches on cages and crossheads shall be kept well oiled and in good working condition. All compartments of the shaft used for hoisting men and ore shall be inspected once each shift to see if there are any broken guides or other defects. Any defects found shall be reported and repaired before further use of said compartments. Men working in shafts shall have a suitable covering to protect themselves from material falling down the shafts. They shall instruct all hoisting engineers on duty at the time with respect to the place and nature of their work, so that the cage will not be let down on them. They shall have their working platforms of sufficient size and strength to carry on their work. In shafts, winzes or raises, where two or more crews are working, one crew above the other, there shall be a bulkhead between each crew of men strong enough to stop any tools or other material that may fall from men working above; and only the cage, skip or bucket compartment is to be left open. All shafts and winzes shall have a bulkhead over the men working in the bottom. Said bulkhead shall be built of massive timbers and shall not be more than fifty feet from the bottom of said shaft or winze, and shall provide ample protection for men working in the bottom. All shafts and winzes shall be cleaned down below the bulkhead after each blast.

No open hook shall be used with a bucket in hoisting; but only some approved safety hook or shackle-hook. In no case shall a cage, skip or bucket be lowered down to the bottom of the shaft when men are working there; but must be stopped at least fifteen feet above the bottom until the signal to lower further has been given by one of the men at the bottom of the shaft. (This rule shall not apply to shafts less than fifty feet in depth.)

Stretchers with woollen blankets shall be kept in some suitable place near the collar of each of the main shafts for use in carrying any person who may be injured at the mine. A supply of first-aid remedies shall be kept readily accessible for the treatment of anyone injured. Warning signs must be placed at all danger points. Pure drinking water shall at all times be provided. Tanks and water kegs should be provided with locks and adequately protected from contamination by dust and from promiscuous drinking from open vessels on the part of the men.

Trolley wires should be boxed in all places, no matter how high above rail. Boxing should extend to three inches below trolley wire. Strangers and visitors shall not be allowed underground unless accompanied by some employed person deputized to accompany them.

## Synopsis of the Mining Laws of Montana.

### MINE INSPECTOR:

The Mine Inspector and his deputy must at all times have access to any mine and all parts thereof, and such assistance must be rendered them as may be necessary to enable them to make an examination.

### ACCIDENTS:

Whenever a fatal or serious accident occurs in the mine, immediately notify the inspector or deputy inspector of the mines and the county coroner. If the inspector or deputy inspector cannot be immediately present proper sworn statements must be obtained from the witnesses.

### SIGNALS:

The code of signals furnished by the inspector of mines must be used in the mines to the exclusion of all other signals.

A copy of the code of signals must be posted on the gallows frame, and one before the engineer.

### PROTECTING MINING SHAFT:

All shafts, drifts, cuts or dangerous excavations within the limits of the city, or within one mile of the limits, or within three hundred feet of any street, road or public highway, must be protected by a substantial cover over it or a tight fence around the same.

### CAGES:

The doors upon the cages must be closed when lowering or hoisting one or more men. The doors must always be upon the cage except when the cage is used for sinking only. Men must not be lowered or hoisted upon the cage at a greater speed than 800 feet per minute; express orders to this effect must be given the hoisting engineers.

### BUILDING NEAR SHAFT:

No building or enclosure used for blacksmith shop or drying room must be erected or maintained within a distance of fifty feet from the mouth of any tunnel or shaft unless the same be fire proof in its construction.

### ESCAPEMENT SHAFT:

If the top of the shaft or hoisting opening is not covered or enclosed by a shaft house or building which is fire proof; and if drifting along the vein or veins has been done for a distance of two hundred feet or more, and stoping commenced; a separate escapement shaft, raise or opening must be provided or maintained, or an underground opening or communication between the mine and some other contiguous mine; and said exit, escapement shaft, raise or opening must be of sufficient size to afford an easy passage way, and shall be continued to and connected with the lowest workings in the mine. If it be a raise or shaft, it must be provided with good and substantial ladders from the deepest workings to the surface, and with suitable landings every thirty feet. Sign boards should indicate direction of exit.

### EXPLOSIVES:

It is unlawful to store, deposit or keep in any mine a greater quantity than three thousand pounds of blasting powder, or other highly explosive substance. None of such explosives shall be stored, deposited or kept in any place where its accidental explosion would cut off the escape of miners working in the mine.

### VENTILATION:

All quartz mines worked to a depth of three hundred feet or over, whether operated by tunnel, shaft or other opening, must be provided where necessary, feasible and practicable, with a suitable and practicable method for ventilating the mine, either by separate shaft or other mine

workings of suitable size or capacity, which said ventilating system shall provide for the delivery of aid to all portions of said mine that are being operated, and also provide reasonable means for the carrying away of noxious fumes, gas or smoke.

#### **TOILET ARRANGEMENTS:**

Where toilet cars are used they shall be sent to the surface each day for proper cleaning or disinfecting. Where toilet apparatus is not provided, employees shall be allowed to go to the surface or other suitable place, which place shall be kept in a reasonable sanitary condition. Underground stables shall be cleaned and droppings in waste taken to the surface each day.

#### **GUARDING UNDERGROUND WORKINGS:**

Underground workings, consisting of chutes, manways, winzes or any opening kept for ventilating purposes, or for the removal of ore or waste material, shall be protected by guard rails, or suitable cover known as a grizzly made of good substantial material, or timber or metal bars. Shafts at stations shall be protected by guard rails at every level. In every vertical manway used by employees, exclusively for traveling purposes, in addition to the proper ladders, there shall be suitable landings placed not to exceed thirty feet apart; and so far as feasible and practicable, all such manways or air courses used as an escape for men must be free from all obstruction.

#### **HOURS OF LABOR:**

The period of employment of working men in all underground mines or workings shall be eight hours per day, except in cases of emergency, where life and property is in imminent danger. Hoisting engineers must not work longer than eight hours in twenty-four, unless for the purpose of relieving another employee in case of sickness or other unforeseen cause or causes.

#### **EMPLOYMENT OF CHILDREN:**

No child less than sixteen years of age must be employed in or about the mine. In case of doubt as to the age of an applicant, employers should demand an age certificate, signed by the Commissioner of the State Department of Labor and Industry.

### Number of Recommendations.

During the years 1913-1914, notices recommending the following were issued and were generally complied with. In reference to:

Timbering .....	20
Places for storing powder .....	10
Quantity of Explosives in magazines .....	9
Storing inflammable material in buildings covering the mouths of tunnels .....	8
Apparatus for thawing powder .....	5
Employing cage tenders who should have exclusive charge of cages in shafts .....	10
Defective safety clutches on cages .....	5
Defective hoisting cables .....	4
Escapement shafts .....	10
Number of men permitted to ride on skips or cages.....	5
Forbidding riding on loaded cages, skips or buckets .....	5
Use of State Mine Signals.....	12
As to gates when lowering or hoisting men .....	6
Providing better ventilation .....	26
Tunnels with separate connections to surface for escape .....	6
Leaving pillars of ground to protect shafts .....	8
Rate of speed in lowering and hoisting men .....	3
Repairing and putting in of ladders .....	20
Cross-heads .....	4
Railings around shafts, winzes and man-ways .....	40
Finger boards .....	20
Filling of stopes to prevent caves .....	16

### Number and Causes of Fatal Accidents.

The following table shows the number of fatal accidents and their several causes occurring during the past two years:

	1913	1914
Premature blasts and explosions .....	6	2
Fall of rock or ground .....	16	14
By cages in shafts .....	2	3
By falling down stope .....	1	..
Struck by material falling in shaft .....	2	..
Falling down ore chutes .....	6	8
Falling down manways .....	3	2
Suffocated .....	1	..
Falling down shaft .....	6	3
By engine running away .....	4	..
Struck by drills .....	1	..
Struck by motor .....	2	..
Drawn into sheave wheel .....	1	..
Loading ore .....	..	1
Mine gas .....	..	2
Crushed by ore car .....	..	1
Electrocuted .....	..	2
Cave of ground .....	..	2
Killed by skip .....	..	1
Totals.....	51	41

## NON-FATAL ACCIDENTS.

The following table shows the number of non-fatal accidents and their several causes occurring during the past two years:

CAUSES.		
	1913	1914
Fall of rock or cave of ground .....	21	21
Premature blasts and explosions .....	4	2
Falling down chute .....	5	2
Falling down manway .....	2	3
Being struck by cage .....	1	2
Drawn into sheave wheel .....	1	..
Struck by work car .....	2	..
Material falling in shaft .....	1	1
Engine running away .....	8	..
Crushed by ore car .....	..	1
Loading timber .....	..	1
Struck by motor .....	..	2
Falling off ladder .....	..	1
Hurt by drill .....	..	1
Totals.....	45	37

FATAL ACCIDENTS, THEIR NATURE AND WHERE OCCURRING FOR  
THE YEAR 1913.

Date	Name	County	Mine	Causes
Feb. 26	Chas. Froner ...	Jefferson ..	Corbin .....	Falling in chute.
Apr. 4	Ed. Shea .....	Fergus ....	Barnes-King ..	Fall of ground.
May 22	Ernest Minea....	Broadwater..	Ohio-Keating...	Fell down stope.
May 29	W. Miller .....	Granite ....	Granite Mt....	Fall of ground.
Oct. 24	Jno. Border.....	Jefferson ..	Bertha .....	Fall of ground.
Dec. 22	Phillip Boyle ....	Silver Bow..	Modon .....	Fell down shaft.
Jan. 2	George Winters...	Silver Bow..	Raven .....	Platform collapsed, broke neck.
Jan. 7	Nell McIslic ....	Silver Bow..	Berkley .....	Struck by cage.
Jan. 7	A. C. Ross.....	Silver Bow..	Bell .....	Fell in chute.
Jan. 15	W. J. Brown.....	Silver Bow..	Mount Con....	Premature blast.
Jan. 23	Thomas .....	Silver Bow..	High Ore.....	Fell in chute.
Jan. 25	W. J. Lahiff.....	Silver Bow..	Pittsmtont .....	Blasted in shaft.
Feb. 24	Dan Harrington..	Silver Bow..	Modoc .....	Crushed by car.
Mar. 8	Pat S. Sullivan..	Silver Bow..	Badger State..	Fell, while repairing chute.
Mar. 13	John Lehto.....	Silver Bow..	Original .....	Premature blast.
Mar. 13	Nels Erkillä.....	Silver Bow..	Original .....	Premature blast.
Mar. 28	Thos. H. Smith...	Silver Bow..	Leonard .....	Fall of ground.
Mar. 28	Hugh Gallagher..	Silver Bow..	Bell .....	Died changing skip.
Mar. 30	Ed. Prynnne ....	Silver Bow..	Mountain View	Fell down shaft.
Apr. 4	James Elston....	Silver Bow..	Leonard .....	Fall of ground.
Apr. 4	Isaac Blunquist..	Silver Bow..	Mount Con....	Fall of ground.
Apr. 5	Gust Resech.....	Silver Bow..	Anaconda ....	Fall of ground.
Apr. 15	Ed. Gross .....	Silver Bow..	High Ore.....	Suffocated under slide of rock.
Apr. 18	Mike Koenan.....	Silver Bow..	Bell .....	Fell down shaft.
Apr. 23	Andy Bertell ....	Silver Bow..	Leonard .....	Cage dropping down shaft.
Apr. 23	Frank Warren....	Silver Bow..	Leonard .....	Cage dropping down shaft.
Apr. 23	T. J. Pascoe.....	Silver Bow..	Leonard .....	Cage dropping down shaft.
Apr. 23	Sam Lawrence....	Silver Bow..	Leonard .....	Cage dropping down shaft.
Apr. 23	Nick Treglone....	Silver Bow..	Leonard .....	Struck by piece of casting.
May 5	John Stankovich.	Silver Bow..	Tramway .....	Premature blast.
May 5	Mike Galot.....	Silver Bow..	Tramway .....	Premature blast.
May 16	Pat McCarton....	Silver Bow..	Badger State..	Fell down chute.
May 18	Herman Miller...	Silver Bow..	Pittsmtont .....	Killed in shaft.
May 23	Nick Frankinvich	Silver Bow..	Leonard .....	Pulled into sheave wheel.
June 11	Sam J. Grant....	Silver Bow..	Bell .....	Fall of ground.
June 24	Thos. Vucklnich..	Silver Bow..	Badger State..	Internal hemorrhage.
June 24	Thos. McNichols..	Silver Bow..	Moonlight .....	Fall of timber.
June 10	G. W. Powell....	Silver Bow..	Leonard .....	Struck by cage.
Aug. 11	John Makl .....	Silver Bow..	Speculator .....	Fall of rock in shaft.
Aug. 18	John Kaaen.....	Silver Bow..	Colorado .....	Fall of rock.
Aug. 25	John Denehey....	Silver Bow..	Bell .....	Fall of timber.
Sept. 4	Fred Oates.....	Silver Bow..	Speculator ....	Caught by car.
Sept. 11	John Rudeman...	Silver Bow..	Colorado .....	Heart failure.
Sept. 27	Andy Wandamen..	Silver Bow..	W. Grey Rock ..	Fall of ground.
Sept. 20	Balt Lane.....	Silver Bow..	Badger .....	Crushed.
Oct. 10	Pat Lyden.....	Silver Bow..	Bell .....	Fell into chute.
Oct. 11	John H. Healy....	Silver Bow..	Anaconda ....	Fall of ground.
Oct. 28	Julius Loderman..	Silver Bow..	Silver Bow ....	Fall of ground.
Nov. 3	James Ropello....	Silver Bow..	Leonard .....	Fall of ground.
Nov. 9	Timothy Toumey ..	Silver Bow..	Bell .....	Fall of ground.
Nov. 30	Harry Mills.....	Silver Bow..	Pennsylvania ..	Fell into chute.
Nov. 30	Thos. Deegan....	Silver Bow..	Bell .....	Fall of ground.
May 28	John Miller.....	Granite ....	Granite .....	Cave in mine.

NON-FATAL ACCIDENTS, THEIR NATURE AND WHERE OCCURRING, FOR  
THE YEAR 1913.

Date	Name	County	Mine	Causes
June 28	Thomas Short...	Fergus	Barnes-King	Leg broken, fall down shaft.
Oct. 1	Samuel E. Wear.	Fergus	Barnes-King	Leg broken, fall of ground.
Dec. 17	..... Lyons....	Silver	Bell	Injured, fall of ground.
Dec. 23	Al. Kessle .....	Silver	Bow. Pennsylvania	Leg broken, falling timber.
Jan. 16	R. Price.....	Silver	Bow. Tramway	Hanging wall fell.
Jan. 30	..... Evans....	Silver	Bow. Badger State..	Leg broken, falling timber.
Jan. 23	James Rule.....	Silver	Bow. Original .....	Leg broken, falling timber.
Jan. 28	Ben. Campbell..	Silver	Bow. Speculator	Leg broken repairing raise.
Feb. 1	Harry Rayborne.	Silver	Bow. Belmont	Leg broken by falling timber.
Feb. 9	J. C. Dunston...	Silver	Bow. Leonard	Leg broken.
Feb. 18	Wm. Farthey....	Silver	Bow. W. Grey Rock.	Fall of ground.
Mar. 18	James McDonald.	Silver	Bow. Pennsylvania	Leg broken.
Mar. 18	Ferdinand Bovee.	Silver	Bow. High Ore.....	Leg broken by fall of ground.
Mar. 18	Wm. Gilfeather..	Silver	Bow. St. Lawrence..	Leg broken by derailed car.
Mar. 25	Oscar Karyla....	Silver	Bow. Rainbow Shaft.	Arm broken by falling timber.
Apr. 2	Mike uza.....	Silver	Bow. Berkley	Caught between chute & F.wall
Apr. 6	J. L. Deval.....	Silver	Bow. Leonard	Leg broken by fall of ground.
Apr. 10	Thos. Bibby....	Silver	Bow. Silver Bow.....	Leg broken by fall of ground.
Apr. 15	Jacob Stroccei..	Silver	Bow. Tramway	Caught between car & timber.
Apr. 23	Daniel J. Ruddy.	Silver	Bow. Leonard	Leg crushed.
Apr. 23	Fred Osrerman..	Silver	Bow. Leonard	Legs broken, back wrenched.
Apr. 23	Fred Bevis.....	Silver	Bow. Leonard	Leg sprained.
Apr. 23	Martin Allen....	Silver	Bow. Leonard	Leg broken.
Apr. 23	E. Frederickson.	Silver	Bow. Leonard	L. ankle broken, other sprn'd.
Apr. 23	Carl Fanich.....	Silver	Bow. Leonard	R. knee cut, ankle sprained.
Apr. 23	Richard Boquist	Silver	Bow. Leonard	R. leg broken, back wrenched.
Apr. 23	E. E. McKean....	Silver	Bow. Leonard	L. ankle broken, back wrnch'd
Apr. 28	Dave Pelletier..	Silver	Bow. Moonlight	Leg broken by falling timber.
May 7	Ernest Watson..	Silver	Bow. St. Lawrence..	Leg broken by falling ground.
May 23	James Mothey..	Silver	Bow. Leonard	Pulled into sheave wheel.
June 2	Mike Yakish....	Silver	Bow. St. Lawrence..	Fell into chute.
June 12	Mike Dudley....	Silver	Bow. Berkley	Fell into waste chute.
June 26	Con Crowley....	Silver	Bow. Gagnon	Fall of rock.
June 30	Sam Jackson....	Silver	Bow. Bell	Leg broken by fall of ground.
July 7	Harry Vanhorne	Silver	Bow. Speculator	Leg broken by fall of ground.
July 15	Chas. Pulich....	Silver	Bow. Mount Con....	Fall of ground.
July 15	F. Birmingham	Silver	Bow. Moonlight	Leg broken by fall of ground.
July 30	Isaac Korpi....	Silver	Bow. Tramway	Fall of ground.
Aug. 13	Jerry Gudell....	Silver	Bow. Colorado	Back injured by fall ground.
Sept. 4	Mike Ivon.....	Silver	Bow. High Ore.....	Fell into skip chute.
Sept. 5	Jos. Gaynor....	Silver	Bow. Speculator	Struck by cage.
Sept. 25	Wm. Johnson....	Silver	Bow. B. & A. Scott.	Premature blast.
Oct. 9	J. W. Gilbert...	Silver	Bow. Leonard	Leg broken by fall of ground.

FATAL ACCIDENTS, THEIR NATURE AND WHERE OCCURING FOR THE  
YEAR 1914.

Date	Name	County	Mine	Causes.
Dec. 1	Frank Whittick..	Silver Bow.	Badger State..	Fall of hanging wall.
Dec. 2	August Napilla..	Silver Bow.	Mount Con.....	Fall of ground.
Dec. 11	James Lawrence...	Silver Bow.	Leonard .....	Fall of ground.
Dec. 24	Mike Hennessy...	Silver Bow.	Belmont .....	Chute gave way.
Dec. 29	Edison Currier....	Silver Bow.	West Colusa...	Fall of ground.
Dec. 31	Pat Heena.....	Silver Bow.	Pennsylvania ..	Fall of ground.
Jan. 1	Herman Hakkila....	Silver Bow.	Pittsmt .....	Mine gas.
Jan. 10	W. J. Trewren....	Silver Bow.	Mount Con.....	Fell into chute.
Jan. 14	Neil McCallon....	Silver Bow.	High Ore.....	Crushed by car.
Jan. 27	Arthur Perkeson...	Silver Bow.	High Ore.....	Electrocuted.
Feb. 5	James Lowney....	Silver Bow.	Original .....	Fell into chute.
Feb. 13	Henry Nickola...	Silver Bow.	Leonard .....	Fell into chute.
Mar. 3	Wino Korpi.....	Silver Bow.	Parnell .....	Fell down chute.
Mar. 16	Charles Etaola...	Silver Bow.	Badger State...	Fell down chute.
Mar. 19	Thomas Knight...	Silver Bow.	Original.....	Struck by cage.
Mar. 22	John Holland....	Silver Bow.	Badger State...	Killed while putting in timber.
Apr. 9	George Schulte...	Silver Bow.	St. Lawrence...	Fell down chute.
Apr. 22	Cornelius Gilles...	Silver Bow.	Badger State...	Killed by falling timbers.
Apr. 25	Jerry Mahoney...	Silver Bow.	Pennsylvania ..	Killed in shaft.
Apr. 29	John McGovern...	Silver Bow.	Speculator ....	Fell into chute.
May 5	Charles Lund.....	Silver Bow.	West Colusa...	Killed by timbers and filling.
June 3	Geo. Cunningham...	Silver Bow.	Leonard .....	Blasted.
June 5	Nick Kozan.....	Silver Bow.	Pittsmt .....	Fell off cage.
July 22	Joseph R. Torrey...	Silver Bow.	Speculator ....	Struck by piece of lagging.
July 11	John Dado.....	Silver Bow.	Tramway .....	Killed on cage.
July 14	Thomas Morrison...	Silver Bow.	Badger State...	Fell into chute.
July 15	Arbor Leonard....	Silver Bow.	High Ore.....	Killed working on elec. wires.
July 22	Jacob Brock .....	Silver Bow.	Moose Shaft...	Fell into shaft.
July 28	Phillip Dwyer....	Silver Bow.	Speculator ....	Fall of ground.
Oct. 2	Roy Barnes.....	Silver Bow.	Hallie .....	Fall of ground.
Oct. 3	Arthur Newmar...	Silver Bow.	West Stewart...	Fall of ground.
Sept. 17	Wm. Rodda.....	Silver Bow.	Rodda .....	Fall of ground.
Sept. 17	Will Bailey.....	Silver Bow.	Rodda .....	Fall of ground.
Sept. 17	James Martin....	Silver Bow.	Rodda .....	Fall of ground.
Nov. 13	Arthir Norman...	Silver Bow.	Original .....	Fell down manway.
Nov. 19	Alex McGowan...	Silver Bow.	Anaconda .....	Fall of ground.
Feb. 16	Chris Sermelock...	Broadwater.	Keating .....	Premature blast.
Feb. 20	John Sullivan....	Broadwater.	Keating .....	Fall of ground.
Feb. 23	Dan Shea.....	Broadwater.	Keating .....	Killed acting station tender.
Oct. 27	John Host.....	Deer Lodge.	Southern Cross.	Fall of ground.

NON-FATAL ACCIDENTS, THEIR NATURE AND WHERE OCCURRING  
FOR THE YEAR 1914.

Date	Name	County	Mine	Causes
Dec. 2	August Napella....	Silver Bow.	Mount Con.....	Fall of ground.
Dec. 10	Chris Leske.....	Silver Bow.	Pennsylvania ..	Leg broken by timber.
Dec. 29	Edson Currier.....	Silver Bow.	West Colusa....	Putting in set of timber.
Jan. 10	John Higgins.....	Silver Bow.	Maddock .....	Leg broken by fall of ground.
Jan. 16	Wm. Tatersall.....	Silver Bow.	Tramway .....	Scull fractured by fall ground.
Jan. 28	Fat Shea.....	Silver Bow.	Badger State...	Leg broken by fall of ground.
Jan. 29	Martin Dempsey..	Silver Bow.	Moonlight .....	Leg broken by rock rolling.
Feb. 2	Osmine Guay.....	Silver Bow.	Tramway .....	Premature blast.
Mar. 10	John Gateley.....	Silver Bow.	Mount Con.....	Fall of ground.
Mar. 12	Frank Mooney....	Silver Bow.	Belmont .....	Thrown off cage.
Mar. 25	Chris Prickett....	Silver Bow.	Tramway .....	Running car into car of drills.
Apr. 23	Jno. P. Kapisoda	Silver Bow.	Tramway .....	Fall of ground.
Apr. 27	Barney Callahan..	Silver Bow.	Badger State...	Leg crushed.
Apr. 30	Nick Petkovich...	Silver Bow.	Maddox .....	Leg broken loading timber.
May 1	Martin Greeley...	Silver Bow.	Leonard .....	Ribs broken, back injured.
May 5	James Hanna.....	Silver Bow.	Mount Con.....	Fall of ground.
May 5	Harry Hicks.....	Silver Bow.	West Colusa....	Fall of ground.
May 6	Con Callahan.....	Silver Bow.	West Colusa....	Leg broken falling into chute.
May 15	Fred Lohman.....	Silver Bow.	Mount Con.....	Back broken by fall ground.
May 22	James Tally.....	Silver Bow.	Gagnon .....	Leg broken by fall ground.
June 3	John Bane.....	Silver Bow.	High Ore.....	Leg broken by fall ground.
June 4	John Baldo.....	Silver Bow.	West Stewart...	Rock fell into shaft.
June 12	George Stephen...	Silver Bow.	Belmont .....	Foot crushed, riding on motor.
June 17	Andrew Inall.....	Silver Bow.	Berkley .....	Pulled into chute.
June 20	Jno. K. Harrington	Silver Bow.	St. Lawrence...	Cut while riding on motor.
June 20	Joseph Webber...	Silver Bow.	St. Lawrence...	Ankle broken putting in stull.
June 26	Iguay Kolsick....	Silver Bow.	West Stewart...	Leg broken falling off ladder.
July 7	David Newmar...	Silver Bow.	Original .....	Timber fell on him.
July 8	Julius Swampera..	Silver Bow.	Speculator .....	Leg broken taking down bar.
July 17	Owen J. Fagan....	Silver Bow.	West Stewart...	Leg broken by fall of ground.
July 18	John Dennehy....	Silver Bow.	Original .....	Struck by chute bar.
July 23	Mike M. Miller...	Silver Bow.	Moonlight .....	Fall of ground.
July 28	Herman Karovich.	Silver Bow.	Speculator .....	Fall of ground.
Oct. 1	Wm. Richards....	Silver Bow.	Leonard .....	Leg broken, fall of ground.
Oct. 8	Frank White.....	Silver Bow.	Speculator .....	Leg broken, fall of ground.
Oct. 12	T. Mullen.....	Broadwater.	Keating .....	Injured by drill.
Oct. 17	T. Bordins.....	Broadwater.	B. & H.....	Premature blast.

## MINES INSPECTED, MEN EMPLOYED, ACCIDENTS AND PERCENTAGES.

The following table gives the number of mines inspected, the number of men employed and the fatal and non-fatal accidents in the metaliferous mines during the past twenty-two years.

Year	Mines Inspected	Men Employed	Fatal Accidents	Non-fatal Accidents	Total Accidents	Percentage of Fatal Accidents per 1,000 Men Employed
1893	56	6,312	29	4	33	6.45
1894	78	7,082	27	19	46	3.81
1895	88	8,758	41	18	59	4.67
1896	78	7,727	64	21	85	8.28
1897	130	9,825	52	29	81	5.20
1898	136	11,096	48	29	77	4.32
1899	165	12,316	49	32	81	3.97
1900	163	13,996	47	35	82	3.26
1901	157	12,078	35	33	68	3.00
1902	169	13,784	47	45	92	3.41
1903	168	14,175	39	50	89	2.74
1904	176	14,480	41	55	96	2.83
1905	186	14,680	48	41	89	2.83
1906	190	15,000	52	43	95	3.20
1907	290	15,000	42	21	63	2.70
1908	280	14,500	21	17	38	1.32
1909	280	14,500	47	31	78	3.00
1910	280	14,000	51	30	81	3.60
1911	270	14,000	46	20	66	3.28
1912	278	14,500	47	25	72	3.21
1913	225	15,000	49	45	94	3.16
1914	200	*15,000	41	37	78	2.73

\*Number men employed to August 1st.

## LABOR AND INDUSTRY

## MONTANA'S MINERAL OUTPUT.

Year	Gold	Silver	Copper	Lead	Total
1890	\$3,300,000	\$20,360,636	\$16,665,473	\$ 675,392	\$40,095,465
1891	2,890,000	20,139,394	14,377,336	1,229,027	38,635,767
1892	2,891,386	22,432,323	19,105,646	990,035	45,419,208
1893	3,576,000	21,558,780	16,360,958	964,059	43,029,827
1894	3,651,410	16,575,458	17,233,718	730,551	38,191,137
1895	4,327,040	22,886,992	21,114,689	754,360	49,083,261
1896	4,380,671	20,324,877	25,356,541	670,010	50,732,099
1897	4,496,431	21,730,710	26,798,915	928,619	53,954,675
1898	5,274,913	19,159,482	26,102,616	809,056	51,310,067
1899	4,819,157	21,786,835	40,941,906	909,340	68,457,338
1900	4,736,225	18,334,443	39,827,185	701,156	63,746,727
1901	4,602,717	18,334,443	36,751,837	498,622	60,387,619
1902	4,400,095	17,622,285	24,606,038	332,749	46,961,147
1903	3,590,516	17,097,702	28,200,692	387,445	50,276,335
1904	5,097,786	18,887,227	36,410,301	195,525	60,590,848
1905	4,889,234	7,991,705	48,165,227	227,160	70,677,583
1906	4,469,014	8,027,027	56,105,288	254,390	68,855,764
1907	3,286,212	6,149,619	57,949,000	275,500	67,646,330
1908	3,057,640	5,488,785	45,195,000	265,400	54,006,820
1909	3,791,510	6,436,931	40,567,541	128,287	51,429,694
1910	3,730,486	6,567,942	36,170,686	180,677	48,358,253
1911	3,710,571	6,851,794	34,105,963	289,421	46,955,287
1912	3,625,235	7,829,957	51,106,914	335,104	64,754,613
1913	3,493,432	8,346,797	44,613,448	481,176	61,900,546

PRODUCTION OF GOLD, SILVER, COPPER, LEAD AND ZINC ORES OF MONTANA BY COUNTIES, DURING THE YEAR 1913; TOGETHER WITH THE TONNAGE OF ORE SOLD OR TREATED AND THE AVERAGE VALUE PER TON.

County	Gold	Silver	Copper	Lead	Zinc	Tons	Average Value
Beaverhead .....	\$ 26,741	\$ 28,683	\$ 10,181	\$ 12,504	\$ .....	4,405	\$17.11
Blaine .....	254,497	15,098	.....	.....	.....	80,664	3.71
Broadwater .....	365,522	7,309	61,813	2,432	.....	18,132	23.91
Cascade .....	5,433	176,529	576	139,989	253	13,600	23.72
Deer Lodge .....	273,066	8,402	14,701	.....	.....	33,266	8.90
Fergus .....	450,713	6,003	166	768	2,800	55,310	8.49
Granite .....	121,297	440,785	56,167	3,117	.....	37,988	15.84
Jefferson .....	64,136	137,569	135,495	66,870	588	44,149	9.12
Lewis and Clark ..	153,389	31,072	1,887	9,820	.....	25,377	6.79
Lincoln .....	2,447	250	.....	957	.....	125	28.42
Madison .....	870,397	49,802	4,027	11,550	.....	17,248	13.98
Meagher .....	774	4	207	.....	.....	5	41.40
Missoula .....	22,236	22,284	14,001	18,263	4,424	13,836	4.89
Park .....	2,554	10	.....	.....	.....	.....	.....
Powell .....	46,864	36,623	19,669	1,320	.....	2,177	37.06
Ravalli .....	10,767	217	786	145	.....	66	22.92
Sanders .....	2,855	10,275	13,133	13,674	.....	1,200	31.75
Silver Bow .....	779,744	7,375,882	44,280,882	199,858	4,957,628	5,612,530	10.26
Total.....						5,960,118	\$10.25

## BEAVERHEAD COUNTY.

There seems to be more doing in the way of mining in this county than for several years past. The Blue Wing district has several properties working, and in the Bannack district the Watams mine has been operated during the year, its values being mostly in gold. At Elkhorn there has been considerable work done at the Elkhorn mine and it has one of the best surface indications in the state. At Argenta, where mining was carried on in the early days of the state, most of the work is done by leasers. The surface showings there are excellent. The old Heckla mine was opened up by the Longmaids this year. This mine paid several millions of dollars in dividends in the early days. An electric line from the Big Hole plant which furnishes power has just been completed.

### Watams Mine.

John McCoy is foreman at this mine, and employs sixteen men. The mine has some very rich ore which runs high in gold values. It is situated just above the old placer diggings on Grasshopper creek.

### New Departure Mine.

The New Departure mine is being worked by leasers who employ about six men. This mine was one of the large producers of Beaverhead county in former years, but the low price of silver has caused it to be worked on a small scale.

### Heckla Mine.

The Heckla mine is run by the Longmaids, of Helena, and employs about sixty-five men. This mine formerly belonged to the old Heckla company, and produced several millions of dollars. It has a large amount of tailings which have good values and will be worked by this company later.

### Elkhorn Mine.

This mine is located in the Elkhorn mining district, and is now engaged in driving a large tunnel which has reached a length of 1,100 feet. This mine has an excellent surface showing and there is no doubt that this tunnel will open up a great many veins. This mine employs 30 men and Sam Hall is the foreman and W. R. Allen is general manager.

### Ingersoll Mine.

Philip Lonergan is the foreman of this mine, located in the Blue Wing district, which produces a large amount of silver of high values. At the present time about six men are working.

## BLAINE COUNTY.

Mining in this county has been confined mostly to the Ruby Gulch Mining Company, which has been running for about two years, treating about 100 tons per day. The mine is electrified and has its own mill for the treatment of ore. The values are gold. The Beaver creek company is installing steam shovels for the purpose of handling its ore, which will make it much cheaper, and it is likely that the ore

will be shortly produced on a large scale. This is the first instance of steam shovels being used for mining in this state. The Augusta is another mine that is operating in this county.

### Augusta Gold Mining Company.

The Augusta Gold-Mining Company consists of eleven claims situated at Landusky. The property is being developed through a series of tunnels ranging from 300 to 700 feet, various tunnels being connected with the surface for ventilation and exit in case of an accident. They have a shaft 250 feet below their lowest workings, and the vein, explored to a distance of 200 feet, shows a well defined ore body. A cyanide plant for the treatment of ores has just been completed, with a capacity of about 210 tons per day. L. Goslin is the manager of this mine, and employs about twenty-five men.

### Ninety-Six Mine.

This property is situated on Dry Beaver creek, three miles north of Alder Gulch mine, and is worked by the Beaver creek Mining company, through a series of tunnels ranging in length from 300 to 800 feet. A cyanide plant for the treatment of ores has just been completed. Harry Whitcombe is the general manager of this mine and employs about 65 men.

## BROADWATER COUNTY.

The Radersburg district is the most active in this county. The principal mines are the Ohio-Keating and The Keating. The deepest shaft is 1,000 feet. The veins seem to be of true fissures carrying ore of an iron sulphide character having large values in gold. What is now keeping it back is the distance they have to haul the ore. There is a railroad now proposed to reach Radersburg, and if it should materialize several properties that are now shut down will be opened up. The mines are all electrified.

### The Keating Gold Mining Company.

The Keating Gold Mining Company is operating in the Keating and Blacker group situated in the Radersburg district under the supervision of A. C. Lombard. The property is worked through a 1,000 foot shaft on an incline, with two compartments, 150 feet being sunk during the year 1914. This mine is equipped with an electric engine furnished by the Missouri River Power Company. This mine employs about 150 men, 100 of which are miners. Joe Williams is the foreman.

### Black Friday.

The Black Friday group is located southwest of Radersburg and is operated by the Black Friday Gold Mining company under the management of A. B. Bennett, and employs about 30 men. This property has been extensively developed during the last two or three years and shows well defined veins and continuous ore bodies carrying gold values. This mine is also equipped with electric power and has just completed a mill for the treatment of ores.

The Iron Edge, Green Horn, Little Giant, John L., East Pacific, Barnetta Group, Rena and Republic mines have closed down mostly on account of the high cost of transporting the ore to the railroad.

### CASCADE COUNTY.

Owing to the low price of silver, Cascade County has not been producing as in former years. It is hoped that in the near future matters will be so adjusted that the old camp at Neihart will maintain the standing it formerly had.

#### Ripple Group.

The Ripple group of claims is situated on Snowshoe Creek. Recently a tunnel has been driven further down the mountain to attain a much greater depth, and has reached a length of 1,300 feet. Several high grade ore bodies have been uncovered, 700 feet on the strike of the vein. Connections are made to surface for ventilation and escape, it being 200 feet vertically between tunnels. The property is owned and operated by J. C. E. Barker and employs 20 men. Because of the gold values contained, the property is considered one of the most likely in the district.

#### Lexington.

This property is located on the west end of the Big Seven and is operated by a party of leasers, and regular shipments to the silver smelter are made. Prospecting and developing are carried on extensively to ascertain the extent of the ore bodies. The property is owned by Pearson and Harrison company. The tunnel has reached a length of 700 feet and seven men are employed.

#### Big Seven Mine.

The Big Seven has been developed extensively during the year under the management of David Barker, the lower tunnel having reached a length of 1,200 feet, 700 feet on the strike of the vein, showing a well defined vein, carrying high values in gold and silver, the tunnel cutting the ore body 700 feet in depth. Machine drills are used. In the operations for developing purposes 10 men are employed.

The Hartley, Florence, Dakota, Liberty, Marguerite, Barker, Black Diamond, Fitzpatrick, Snowdrift are mines which have very promising properties, but are idle at the present time.

### DEER LODGE COUNTY.

In Deer Lodge county there seems to be located one of the best districts for the mining of gold in the state. There is no doubt that when the Georgetown district is properly prospected and the properties opened up as they should be, it will develop some mines of high standing. The Southern Cross company has a large amount of ore opened up, which is of good grade and will give a large tonnage for a long time to come. The Red Lion district promises a great deal for the future.

### Southern Cross Mine.

The Southern Cross property is located in the Georgetown district and is worked by the Anaconda company. There have been some extensive ore bodies opened up in this mine in the last year. The ore is oxidized iron carrying gold values. This property is worked through a two-compartment shaft 500 feet in depth. One of the most up-to-date surface plants to be found in the state outside of Butte has just been completed on this property, consisting of boarding house, dry house, offices and home for the superintendent. This mine employs about 125 men.

### Oro Fino.

This mine is operated by Charles Boston, and is situated in the Georgetown district. The operations are through a perpendicular shaft which is about 300 feet in depth, and the ore is of an oxidized iron. About twenty-five men are employed.

### Short Shift.

This mine is worked by leasers and employs about six men.

The Iron Mask, Montana, Venice, Fotheringay, Venezuela, Minnaha, Tribby, Holdfast, Baltic, Duplex, Hidden Lake and Eagle Mines are former producers of this county, but are at the present time idle.

## FERGUS COUNTY.

The principal working at present is in the region of the Barnes-King mine, where operations are carried on on a large scale. There are many properties of merit that are not working at present, but it is more than likely that within a short time operations will be resumed. The Spotted Horse and several other mines are now working on a small scale. This district is one of the large gold producers of the state.

### New Year Mine.

The New Year mine consists of eight claims, and is at the present time worked by leasers.

### London Sapphire Company.

This property is situated on Yogo creek, forty miles west of Moore. A. Chas. Gladsen is superintendent and W. A. Danforth is foreman. A shaft has been sunk 100 feet in depth, and the same process has been followed as in metalliferous mining. Heretofore a large part of the material has been worked by sluicing, the dyke being worked in places by this means to a depth of 50 feet. The material is taken to the surface and allowed to disintegrate before being run through the sluice boxes where the gems are recovered. Within the last year the London Sapphire company has taken over the American Sapphire company, leaving both the properties under the same management. These two mines work about sixty men in all.

### McGinniss Mine.

This mine is worked by leasers.

### Barnes-King.

This company's holdings consist of twenty patented claims in the vicinity of Kendall in the North Moccasin mountains, operated by the Barnes-King Gold Mining company. At present they are operating through the San Diego shaft, which has attained a depth of 600 feet, 150 feet of which was sunk during the year 1914. This mine has a large amount of gold ore blocked out, and within the last year has completed a large addition to its mill, which is a cyanide plant for the treatment of ores. George T. McGee is general manager, and T. H. Heatherly is the foreman, about 125 men being employed.

Other important mines in this county which are either idle or being developed to a small extent at the present time are the War Eagle, Golden Eagle, Forge Creek and Spotted Horse.

### FLATHEAD COUNTY.

Flathead county has a considerable mineral showing, but there is very little being done at the present, beyond development work. The Okedale, Northern and Lippincott are about the only properties in Flathead county that have been worked.

### GRANITE COUNTY.

The principal mining in Granite county during the year was at Granite mountain, where considerable development in the way of sinking below water level has been going on in the hope of encountering ore in paying quantities. There was an important strike made at Maxwell in the Royal Basin mine, where a large body of copper ore in sulphides, with gold values, was discovered. The Garnet district is worked mostly by leasers, and its values are in gold.

### Bi-Metallic.

The old mines of the Granite Bi-Metallic Mining company have been operated during the year. At the old Granite mountain shaft most of the work is being done by leasers, the company working about twenty men and seventy leasers. At the old drain tunnel they have sunk a winze 150 feet below the drainage tunnel, and have encountered a high grade of ore, proving that there are good values below the water level. John Lucas is the general superintendent.

### Royal Basin Mining Company.

The Royal Basin Mining company is located at Maxwell, and has just completed a power line that will furnish electric power for the mine. They have driven in about 300 feet, north and south on the vein, showing well defined ore bodies. A large mill for the treatment of ores is being completed. John Fields is the superintendent, and Pat Kelly is the foreman. About ninety men are employed.

There are many promising mines in Granite county which are at present not producing, among which are the American Flag, Hanna Group, Badger, Hobo, First Chance, Gold Reef, Nancy Hanks, Crescent, Sunday, North Star, Golden Eagle, Grant and Hartford, Frisco, Dewey, Pocahontas, John Mitchell, Hope, Modoc, Northern Bell, International and Trout.

## JEFFERSON COUNTY.

In Jefferson county at the present time there is very little being done in the way of mining, but there are some very good showings at Wickes, Corbin, Basin, Elkhorn and Clancy.

### Mount Washington Mine.

This property is situated in the Blue Bird district, four miles west of Wickes, and is worked through a shaft 200 feet in depth. The vein has been explored to about 500 feet east and west, showing it to be a true fissure, carrying gold, lead and silver as its chief values. This property is equipped with electric power, and is under the management of Chas. Wjarton, who employs about twenty men.

### Golden Sunlight.

This mine is situated seven miles from Whitehall, and is worked through tunnels. Harry Bacorn is the superintendent, and Dan Morgan is the foreman. This is a gold property, and employs about twenty men.

### Ruby Mine.

The Ruby mine is at Lowlands and is worked by leasers.

### Baltimore Mine.

This mine is worked by leasers.

Jefferson county has numerous promising properties which are at present undergoing development work and it is presumed will soon enter the productive class. Among these are the King Solomon, Corbin Copper, Crystal, Mayflower, B. & G., War Eagle, Bullion, Fairview, Bluebird, White Pine, Atlas, Alice, Hattie Ferguson, Elkhorn, Dalport, Center Reef, Bertha, Carbonate Chief, Prickly Pear, Golden Curry, Asset, Knob, Drake, Colorado, Alta, Ebe, Good Cheer, Rose, Daphne and Robert Emmett.

## LEWIS & CLARK COUNTY.

This county has a great mineral district, and there is no reason why more mines should not be worked than at the present time. This county has one of the best gold and silver showings in the state. This year the work has been limited, but new properties are being developed, and Marysville is doing some work. At Scratch Gravel two mines are being worked and have some good showings. There are several mines that are closed at the present time which will be running before long. The Springhill has considerable ore blocked out. Other companies which are operating in Lewis and Clark county are the Helena Mines Bureau, Way Side and Bluebird.

### Blue Bird.

This claim has a shaft fifty feet deep, with a gasoline hoist and a Knowles pump. The management intends sinking 200 feet, and employs six men. This company has also the Eastern Bell, with a good showing.

### Bald Mountain Mine.

This claim is owned and operated by Thomas Cruse, and is under the supervision of J. McGilligan, employing sixty-five men. Operations are conducted through tunnels which vary in length from 1,000 to 2,000 feet. The ore is treated by a twenty stamp mill.

### Franklin.

The Franklin mine is worked by Thomas Cruse, and has two well defined leads, one being of gold ore and the other of lead, both leads being on the same claim. This mine is worked with a gasoline engine, and now has a shaft down 250 feet. It has been producing a considerable amount of ore for the past year. Ed Ferrell is foreman, and twenty men are working.

### Shannon.

This mine is owned by Dr. O. M. Lanstrum, T. A. Marlow and N. B. Holter, and is supposed to have at the present time a large amount of ore blocked out. The tunnel is being cleaned and a surface plant is being erected. It is expected that they will soon be shipping ore.

### Valley Forge.

This mine is located at Rimini, and has just completed a tunnel 2,000 feet. A raise has been driven from the tunnel level connecting a winze. This mine is shipping good ore in large quantities, and the management is under Sam Mendenhall. At present about twenty men are employed.

### Porphyry Dyke Mining Company.

The Porphyry Dyke Gold Mining Company is located in the Rimini district, and C. E. Fryberger is the general superintendent. This company has twenty claims and has a mountain of ore, with a twenty stamp mill grinding away every day with good results.

### York Mining Company.

The property of the York Mining Company consists of three patented claims in the Belt or York Mining district. The principal workings consist of tunnels on three veins, aggregating a total of 6,000 feet. Of this amount most of the work is on the ore, with the exception of a 1,200 foot cross-cut. A sixty ton cyanide plant has been erected during the past year and has been running with good results. Frank Eichelberger is the manager, and J. J. Armstrong is the foreman. About twenty men are employed in and around the mine, and about ten men at the mill.

### Helena Mines Bureau.

The Helena Mines Bureau deserves much credit for the enthusiasm caused by getting together a great many mining men in the city of Helena, where they have raised \$50,000 for the development of mines in Lewis and Clark county. They have at present an option on four properties which they are working under the supervision of

W. F. Work, a man who has had a great deal of experience in the working of various properties in Montana, and it is to be hoped that they will meet with the success they deserve.

#### Pegan and Gloster.

This mine is owned by the Barnes-King Development company, and is under the management of George T. McGee. They have connected their lower tunnel with the upper one by a raise which is of great benefit in furnishing fresh air. They have also completed a mill and are at present working about twelve men. The Great Falls Power company is now constructing a power line which is going to furnish power for this mine. This means a great deal to the Marysville district, as the securing of this power will be the cause of starting up many properties which are idle at the present time.

#### Hock Eye Mine.

This mine is also being worked by the Mines Bureau, and has an incline shaft 115 feet deep, a compartment and one-half. It is equipped with an electric hoist of 500 volts, steel cable. This mine employs six men. It has a line of granite formation.

#### Way Side Claim.

This claim is in the Scratch Gravel district, and consists of three claims. It has a vertical shaft thirty feet, and most of the work done on this claim is surface work.

### LINCOLN COUNTY.

Lincoln county has a large mineralized zone, its principal values being gold, silver and copper. The Hazel T. has installed a large concentrator with a capacity of 200 tons per day and employs about 20 men. The Snowshoe mine, which has formerly been a large producer, is closed. The Troy district is being worked on a small scale, several of the mines working with a few men. This county shows a large mineral belt and will, no doubt, have some mines producing on a large scale in the near future.

The Carbonate Queen, Victor, Victoria, Silver Tip, Montana Morning, Shaughnessy, Keystone, Silver Crown, American Kootenai, B. & B., Big Eight, and Great Northwestern are rich mines that formerly produced ores of great values. They are at the present time idle or being developed in a small way.

### MADISON COUNTY.

The mineral values of this county are well known to the state and it has some very promising gold mines. The Easton at Virginia City has been in the producing class for a good many years and has a large amount of ore in sight. It is one of the finest equipped mines in the state and has its own power plant and mill. The Kersage, Highup and several other mines are closed at the present time. They all have good values and have been worked considerably. The Rochester district is working several properties on a small scale. The work in the Pony district has been done by leasers for the past year. The Bear Gulch dis-

trict is working quite a few men, and a mill has been installed on the Bielenberg property. The Mammoth mine at Mammoth is shipping ore at present.

### Easton Mine.

The Easton group of claims is located seven miles south of Virginia City and is operated under the supervision of Robert Sample. The property is extensively developed by a series of cross-cuts and drifts. It also has a shaft 500 feet in depth below the tunnel and a winze down 300 feet, showing good values in the bottom. This is one of the most up-to-date mines in the state, having its own electric power plant and also having a cyanide mill for the treatment of ores. Herman Stiner is the foreman and employs about 125 men.

### Little Goldie Group.

Joe Ostenrich is the superintendent of this property and employs about 10 men. This property is located in Goodrich gulch and recently has shipped some very rich gold ores.

### Higgins and Bielenberg Group.

W. H. Higgins is the foreman of this mine which is worked through a series of tunnels, varying in length from 400 to 700 feet. A winze has been sunk 85 feet in the lower tunnel. This mine employs about 60 men. They have also completed a mill for the treatment of ores, which amount to about 100 tons per day.

### Little Giant.

A. R. Jones is the foreman of this mine, which employs about 17 men. This mine is worked through a tunnel and has just completed a cyanide plant for the treatment of ores.

### Missouri Mine.

The Missouri mine is located near Ennis, and Henry Pankey is the manager. This mine is worked through a series of tunnels and is a gold mine of some note. It has produced about \$50,000 and has a great deal of ore in sight. The mine employs about 20 men.

There are many mines in Madison county that have very good showings, among which are the Highup, Empire Exploration, Nelly Bly, Revenue, McKee, Germania, Clipper, Bismark, Lehigh, Whipporwill, Winnetaka, Little Kersage, Old Colony, Blowout, Lake Shore, Roach, Bedford, Strawberry, Groundhog, Edgerton, Bell, North Star, Fairview, Prospect, Green Campbell, Nelson, Broadway, New Mine and Hudson mine.

## PARK COUNTY.

Mining in Park county has been limited to leasers and men owning their own property. The question of transportation is a serious one, the different mining districts being so far away from the railroads that it is impossible to handle low grade ores that cannot be treated at the mines. With the showing that they have made on the surface, some day capital will take hold of the different properties, and the matter of the

treatment of the ores will be solved. Work in this county consists mostly of development.

The Republic, Reward, Young Bonanza, King & Queen, Tiger, Goose Lake, Daisy, Crevasse and Yellow Jacket are mines that are at the present time being developed, some of them having a very bright future.

### POWELL COUNTY.

The Elliston district has some fine showing mines, and one mine in the producing class. The Julia mine has a well defined ore bed showing values in gold, silver and lead in the granite formation, and has been a constant shipper.

#### Julia.

This mine is operated by the Montana Clinton Copper company, of which C. D. Fredericks is the manager. The operations are conducted through a 400 foot tunnel. This mine has true fissure veins carrying a high grade of ore consisting of lead, silver and gold. This property is equipped with a steam hoist and employs about 20 men.

Powell County has some very good looking mines that will some day be among the producing class, consisting of the Elizabeth, Emery, Little Dandy, Ophir, Black Jack, Ellen Churchill, Flagstaff, B. & B., Penmount and Birdseye.

### RAVALLI COUNTY.

Mining in Ravalli county has been on a small scale, principally development work, there being several mines that have been worked at times, more or less. The Curlew mine has a shaft 400 feet deep and has done a large amount of cross-cutting and drifting. The Ore Finder has a shaft 200 feet deep. At present there is not much work being done. The Gold Bug is another mine in this county which is at the present time idle, but has some very good showings.

### SANDERS COUNTY.

Mining in Sanders county has not been very active during the past two years. Several mines have been worked on a large scale in the past, but now most of them are developing their properties. There seems to be a large mineral zone in this county which stretches across into Idaho. The ore carries values in gold, silver and lead.

---

## Report of Deputy Mine Inspector D. J. McGrath

The following summary of mining conditions in Silver Bow County is presented by Deputy Mine Inspector D. J. McGrath:

### SILVER BOW COUNTY.

Butte was never more prosperous than during the year 1914, up to August 1. At that time there were 13,300 men working in and around the mines in that district, while some of the larger mines were closed down for repairs, such as retimbering shafts, and changing cylinders on large hoisting engines from steam to air. Other mines increased their forces, which kept the same production and the same number of men employed. While there were not many new properties starting up, there were several of the old ones being opened and developed, notably the "Ella" and "Nettie," which belong to the Anaconda Company, and the "Butte and London," which was being operated by the Rainbow Development Company.

The Sinbad is also being operated by the Butte Main Range Copper Company.

After the breaking out of the European war, which necessitated the curtailing of the copper production, several of the mines were closed down. In order to keep as many men employed as possible, the Anaconda Copper Mining Company is working the largest mines five days a week. The North Butte Company while working full time is working about sixty per cent of their full force. The East Butte, Alex Scott and Ballaklava mines are closed down entirely, exclusive of a few men who are working on repairs. The war, however, had no effect on the zinc mines, as the price of spelter advanced in the last few months, and the Butte and Superior and Elm Orie mines are working more men than ever before.

At the present writing there are 8,030 men working in and about the mines of this district. This includes leasers of which there are about 150 in Silver Bow county. The average shifts worked per month by the miner are twenty-seven. At the present writing there are 4,500 men working an average of 21 shifts per month.

#### SANITARY CONDITIONS.

Of recent years the mining companies of this district have given much attention to the sanitary conditions about the mines, in the way of drinking water, water for dampening down dusty chutes and stopes, the care of stables, toilet cars, etc.

The drinking water in nearly all of the mines is sent down in iron tanks which are dust proof and are kept locked, only the top-man having access to them. When empty they are sent to the top, cleansed and filled with ice and returned. The only way water can be obtained from these tanks is by means of a faucet, thus preventing accumulation of dust, grease and dropping of mine water. There are some of the mines that do not use ice. Most of these mines have a water line running into the mine connected with city water.

The dampening down of dusty chutes and stopes is another very important thing, as there is nothing more injurious in copper mines to the miners' health than dust. This is something that has been taken up by the management of the mines within the last two years. Different mines have different ways of obtaining this water. Mines where the water does not contain copper or other acids have large tanks on the top levels into which the mine water is pumped. By running a water line back down the shaft sufficient pressure is given to force water to any part of the workings. Other mines are connected with the city water which is piped down the shaft in three and four-inch lines, and distributed to all parts of the mine in smaller pipes.

The toilet car, which is required by the state law, has been generally installed. All the mines in the district, with the exception of prospects, and mines employing less than twenty-five men, are equipped with these cars. There is a man employed in all of the mines especially for the purpose of looking after these cars. They are sent to the top and cleaned every twenty-four hours. There are also notices posted on levels prohibiting the throwing of refuse or the dumping of lunch buckets around the levels. This rule however is rather hard to enforce. There are times when a foreman would have to discharge all the men on the level to get the guilty party. Many of the mines are now employing men that do nothing but look after the levels, to keep them in a sanitary condition.

#### VENTILATION

There has been a great deal done in the way of ventilation in the mines of this district in the past two years, both mechanically (that is to say, by means of fans) and the driving of up-raises, sinking of air shafts and driving large cross-cuts especially for air courses, bringing the air directly to the parts of the mine which are being worked instead of through abandoned workings which generates more or less foul air and heat. There has been approximately 5,500 feet of up-raises and shaft-sinking done in the last year, purposely for ventilation. The Anaconda Copper

Mining Company has 72 electric-driven fans in operation which require 2,720 horse power to run and have a capacity of 2,050,100 cubic feet of air per minute. The North Butte Company has four fans, which require 112 horse power and have a capacity of 86,340 cubic feet of air per minute. With all this work being done and fans being installed, there is a chance for big improvements yet. While nearly all of the mines have good circulation of air and some of them are all that could be asked for in the way of circulation and temperature, others are very warm and the air attains a high degree of humidity. Mechanical ventilation is a great benefit to development work, such as sinking shafts, opening up of new levels and driving of air courses. I can cite one instance of the 2,800 foot level in the West Stewart mine, where the installation of a No. 4 Sorrocco fan, which requires 17½ horse power to drive it, made a difference in temperature of 20 degrees in face of X cut. As I say, mechanical ventilation is a great benefit. I would also recommend that there be more air shafts, independent of hoisting shafts, and raises that are not used for transferring ore, waste or other material.

#### ACCIDENTS.

While the accidents of 1914 were considerably less than in 1913 per shifts worked, they could have been still less if the proper precaution had been taken in many cases. As you will see, thirty per cent of the fatal and thirty-five per cent of the non-fatal or serious accidents happened from falls of ground, in most of which cases the ground was within reach of a pick or pinch bar or could have been easily caught up with a small stull or stringer. Many of the accidents happen in a manner least expected or looked for, and in places apparently safe. Accidents are rare in places where it is known to be extremely dangerous, for in such places "Safety First" is the first consideration. It is noteworthy that there has been only one accident this year resulting from the use of powder. Considering that the mines of this district use over six millions pounds of powder per year, this is a remarkable record. This, I think, can be traced to the strict rules that are enforced, prohibiting the leaving of powder lying around stopes or levels, proper places for storing powder, the care taken of magazines, and compelling miners to report all missed holes, coming off shift. The "Safety First" movement, which has been inaugurated here, is another thing that I think will have a tendency to reduce the number of accidents. At first this was taken as a joke by many of the miners, but by having it constantly drilled into them and an example of it continually before them in one form or another, they obtained the spirit that will do more for their own safety and that of their fellow-workmen.

The Anaconda Copper Mining Company offers a bonus or prize of \$1,000 to the foreman having the least number of accidents for a year; \$750 is given to the mine foreman having the least number of accidents, and \$250 is given to the mine foreman having the next least number of accidents. The accidents are figured on the number of shifts worked. This also has a tendency to reduce the number of accidents. It is not so much the money that the winner receives, as it is that none of the foremen care to have the largest number of accidents marked up against them. Thus, I think it makes each foreman and his subordinates more careful in the discharging of their duties. Dan P. Sullivan, foreman of the Original Mine, won the first prize for having the least number of accidents during 1914, and Karl P. Krueger of the West Colusa won the second prize. The Anaconda Copper Mining Company also employs a man known as the "Safety Engineer," whose duty it is to inspect the mines regularly and report anything he finds in an unsafe condition. James Carrigan, a foreman and former shift boss at the Badger State mine, has this position. My opinion is that the reduction of the percentage of accidents in the mines of this district can be obtained by a more rigid enforcement of the present mining laws and rules issued by the mining companies. It is up to the foremen and shift bosses to see that those laws and regulations are strictly enforced, and the miners themselves to conscientiously observe them.

## Mines Operated by Different Companies in Silver Bow County.

### ANACONDA COPPER MINING COMPANY.

During the year 1914 the Anaconda, Never Sweat, St. Lawrence, Mount Con, Bell, High Ore, J. I. C., Belmont, Original, Stewart, Moonlight, Pauline, West Grey Rock, Silver Bow, Berkeley, Tramway, Mount View, Pennsylvania, Leonard, West Colusa, East Colusa, Tropic, Nettle and the Ella were operated by this company. There are several other shafts that this company is working that are charged up to some of those already mentioned. For instance the Gagnon, West Gagnon, are worked through the Original; the Little Minah through the Stewart; the Rarus through the Tramway; and the Modoc through the High Ore. The officers of this company are: Benjamin Thayer, President; Con F. Kelly, Vice-President; John Gillie, Manager; B. H. Dunshee, Assistant Manager; W. B. Daly, General Superintendent; John P. O'Neill and Chauncey L. Berrian, Assistant Superintendents.

#### ANACONDA MINE, Dennis Kennedy, Foreman:

This mine employs underground 600 men and on the surface 90 men; while the Anaconda machine shops employs 260 men. It is a three compartment shaft, 2,700 feet in depth. Although this is one of the oldest copper mines in the camp, it is the best today, its production being about 1,200 tons per day. It is well ventilated, having two independent air shafts, and is connected with the Never Sweat, High Ore, St. Lawrence and Belmont. It is well equipped with water for drilling purposes and for spraying dusty stopes and chutes, the water being brought down the shaft from the surface. There is more stoping done on the back filling system in this mine than in any other mine in Butte. This I consider a safe way of working, where the conditions of the walls and back permit, and the filling is kept close to the back of the stope.

#### ST. LAWRENCE MINE, Dan Crowley, Foreman:

This mine employs 355 men underground and 45 surface men. The ventilation of this mine is very good, it being connected with the Mount View, Pennsylvania, and Anaconda, with two separate air shafts of its own. It has a water line connected with the city water, giving ample pressure to force pure water to any part of the mine. A great deal of back filling stoping is done in this mine. The shaft is three compartment and is 2,600 feet deep, connected through to the High Ore, at this point.

#### NEVER SWEAT MINE, William Murray, Foreman:

The mine at present is working thirty miners, the work being done through the Anaconda shaft.

#### MOUNT CON MINE, James F. Egan, Foreman:

This is one of the mines that have been closed on account of the curtailment. When this mine is working 400 men are employed underground and 80 men on the surface. It has a three compartment shaft and is 2,734 feet deep, 49 feet having been sunk in the past year. The ventilation of this mine is not as good as it should be, but during the last few months before it was shut down, a great deal of work was done on ventilation, in the way of installing fans and connection with the Buffalo shaft.

#### HIGH ORE MINE, Thos. Chope, Foreman:

Up to August 6th this mine employed 712 men underground and 115 surface men. At present it employs 83 men. The High Ore is the main pumping plant of the Anaconda Copper Mining Companies mines, there being over 1,400 gallons of water per minute pumped from this shaft. This shaft is the deepest in the camp, having a depth of 3,402 feet, 57 feet having been sunk this year. The Modoc mine is worked through the High Ore and has a depth of 2,523 feet. It is connected at this point with the 2,800 foot level on the High Ore. It is also connected with the Right Bower shaft, Tuolumne and Ballaklava, giving this part of the High Ore excellent ventilation.

**TRAMWAY MINE, George E. Moulthrop, Supt., E. M. Norris, Foreman:**

This mine employs 625 men underground and 125 surface men. It has a three compartment shaft 2,500 feet deep, 100 feet having been sunk this year. The ventilation in this mine is excellent, as it is connected with the Leonard, West Colusa, Berkley, and the Rarus which is 2,400 feet deep. It has two independent air shafts, with a number 15 Sorrocco fan over each shaft, that have a capacity of 100,000 cubic feet of air per minute. They are driving another air shaft from the 1,600 foot level of the Tramway to the surface, which is now up to the 1,000 foot level, 600 feet having been driven this year. This mine undoubtedly has the largest production of any mine in the camp, there being an average production of 50,000 tons per month, or 1,700 tons daily. They also lower 600 mine cars of waste every twenty-four hours which is used for the purpose of filling.

**J. I. C. MINE, John Andrews, Foreman**

This mine employs 50 miners and 12 surface men. The shaft is 1,000 feet deep.

**BELMONT MINE, John Andrews Foreman:**

This mine employs at present 18 men, but up to August 1st had 55 men employed. The shaft is three compartment, 2,350 feet deep, 309 feet having been sunk this year. There has been nothing going on but sinking in this mine for several months. It is the compaes' intention to make this one of the main hoisting shafts, and it is one of the best shafts in the camp. They have recently completed new steel ore bins that have a capacity of 3,000 tons. This mine is well ventilated and is connected with the Anaconda on the 1,600, 2,000 and 2,200 foot levels.

**STEWART MINE, Dan Griffin, Foreman:**

This mine employs 455 men underground, and 50 surface men. The shaft is 2,659 feet in depth, the 2,500 is now called the 2,800 foot level in order to make the levels correspond with High Ore pumping station. It is equipped with a Nordberg engine which has recently been changed from steam to air. The Little Minah and Clear Grit are worked through this shaft. This mine is connected with the Parrot shaft and the Original.

**ORIGINAL MINE, Dan P. Sullivan, Foreman:**

This mine employs 500 men underground and 75 surface men. The shaft is 2,919 feet in depth. The 2,500 foot level is now called the 2,800, in order to make the levels correspond with the High Ore pumping station. Two hundred feet of shaft has been sunk this year. The Gagnon and West Gagnon are worked through this shaft. The mine is well ventilated, having a three compartment shaft, connected with the Stewart on the 2300, 2400 and 2800 foot levels. There has been a great deal done in the way of ventilation in this mine in the last year. There was 400 feet of air shaft raised in the Original, connecting the 2300 with the 1900. The old air shaft at the Gagnon was in such shape that it was impossible to hold it open any longer. To take the place of this air shaft there was a two compartment raise driven from 2300 to 1900, each compartment 5 feet square. From there was an X cut, 9 feet by 7 feet, 650 feet in length, driven to connect with the West shaft. This shaft has one compartment that is 6 feet by 4 feet 8 inches, bratticed off tight from the other two compartments and ventilation openings. With a Number 11 Sorrocco fan placed at the top of this compartment, a strong upcast is caused, while the two smaller compartments are a strong down cast.

**DIAMOND MINE, Ed. Grimes, Foreman:**

This mine when working employs 550 miners and 50 surface men. At present it is employing 31 men. This mine has been closed down for almost one year for repairs, there being 2,300 feet of the shaft retimbered. The shaft is three compartment and is 3,166 feet in depth. The Bell mine is worked through this shaft.

**MOONLIGHT MINE, W. H. Price, Foreman:**

This mine is now down for repairs on engine. When working it employs 255 miners and 25 surface men. Fifteen men are now employed. It

has a three compartment shaft 1,700 feet deep. It is well ventilated, being connected with the Anaconda, Never Sweat and Colorado mines.

**PAULINE MINE, John Peters, Foreman:**

This mine employed up to August 1st, 160 miners and 20 surface men. Thirteen men are now employed.

**WEST GREY ROCK, T. J. McGrath, Foreman:**

This mine employs underground 175 men and 30 surface men. The shaft is 1,622 feet in depth and has three compartments. This is one of the best ventilated mines in Butte. It is connected with the Diamond, Mount Con, and East Grey Rock shafts. The Wake Up Jim shaft is being opened up and retimbered purposely for an air course, 800 feet having been opened up this year.

**SILVER BOW MINE, Wm. McLean, Foreman:**

This mine employs 110 miners and 20 surface men. It has a three compartment shaft 1,000 feet in depth. This mine is connected with the Pennsylvania, Berkley and Silver Bow number 3 shaft.

**BERKLEY MINE, John Andrews, Foreman:**

This mine employs 210 miners, and has a three compartment shaft 1,600 feet in depth. This mine recently completed installation of a new air hoist, new head frame and ore bins. This is one of the best mines in Butte to work in, being well ventilated and having connections with the Silver Bow, Rarus and Tramway.

**MOUNTAIN VIEW MINE, John Barker, Foreman:**

This mine has closed down for repairs. Several thousand feet of shaft is being retimbered. The shaft is three compartment and 2,300 feet in depth. When working this mine employs 847 men. At present 78 men are employed.

**PENNSYLVANIA MINE, James McQuay, Foreman:**

This mine has a three compartment shaft 2,430 feet in depth. One hundred and eighty feet of the shaft has been sunk this year. Up to August 1, this mine employed 455 miners and 50 surface men. At present it is employing 38 men.

**LEONARD MINE, George Bennetts, Foreman:**

This mine has two shafts. Shaft Number 1 has three compartments and is 2,154 feet deep. Shaft Number 2 is the main hoisting shaft and is 2,259 feet in depth, 129 feet of this having been sunk this year. This mine is well ventilated, being connected with the West Colusa, East Colusa and Tramway mines. They have recently installed a water system which is connected with the city water and is used for drilling and spraying purposes. This mine employs 500 miners and 106 surface men, with 240 men in the machine shops.

**WEST COLUSA MINE, Karl P. Krueger, Foreman:**

This mine has a three compartment shaft and is 2,272 feet in depth, 214 feet being sunk during the year 1914; employs 360 miners and 100 surface men. It is connected with the Leonard, Tramway, Alex Scott and Comanche shafts.

**EAST COLUSA MINE, Alex Fitzgerald, Foreman:**

The shaft is three compartment and employs 100 miners and 17 surface men.

**BADGER STATE MINE, Edward Renaud, Foreman:**

This mine has a three compartment shaft 2,236 feet in depth, 118 feet having been sunk in the year 1914. Up to August this mine employed 600 miners and 105 surface men. At present 40 men are employed.

**TROPIC MINE, W. E. Kane, Foreman:**

Has a three compartment shaft 910 feet deep, 36 feet having been sunk during the past year. When working, it employs 22 miners and 10 surface men. At present 4 men are employed.

**ELLA MINE, Alex Fitzgerald, Foreman:**

This property has not been worked for several years. The shaft has been retimbered recently and sinking has been started. Up to August 1, 20 miners and 12 surface men were employed. At present four men are employed.

**NETTIE MINE. John Hewitt, Foreman:**

This is another of the old properties that have not been worked for a number of years, located west of Butte at the old town of Burlington. It was reopened less than a year ago, the work being done was unwatering and retimbering the shaft. Up to August 1, 28 men were employed, but at the present time only 4 men are employed.

**NORTH BUTTE COMPANY, John D. Rope, General Manager; Wm. Webb,****Foreman:**

The mines worked by this company are the Speculator, Edith May, Jessie and others, all being worked through the Speculator and Granite Mountain shafts. This company employed on August 1, 806 men underground and 150 surface men; but now employs 500 men. The depth of the Speculator shaft is 2,800 feet. Granite Mountain 3,000 feet; 240 feet of the Granite Mountain shaft was sunk this year. The Jem shaft is 2,200 feet in depth, 400 feet of which was raised this year. It is the intention of this company to make the Granite Mountain shaft the main hoisting shaft. They have recently erected a new steel head frame and steel ore bins in this shaft and are installing a new electric hoisting engine, the only one of its kind in this part of the country.

**Granite Mountain Hoist:**

The electric hoist at the Granite Mountain will be of the Ward-Leonard type, and will consist of two hoisting drums 12 feet in diameter, 10 feet face, together with clutches and duplicate brakes grooved for 1½ cable, all auxiliary engines being operated by oil. The hoist motor will be direct current 600 volts with a normal rating of 1,850 horse power, and will be capable of hoisting a load of 42,000 pounds from a depth of 4,000 feet at a maximum speed of 3,000 feet per minute and is capable of hoisting this load from a maximum depth of 5,000 feet. The motor generator set will run at 500 revolutions per minute, and consists of an induction motor of 1,400 horse power, a direct current generator with a normal rating of 1,500 K. W., and a fifty-ton flywheel. The hoist will be equipped with all modern and up-to-date devices for safety to prevent excessive speed and overwinding.

**THE RAINBOW LODGE DEVELOPING COMPANY, John D. Pope, Manager;****Norman Brawley, Superintendent.**

The number of men employed by this company up to August 1, was 39. This property is located north of Meaderville and east of the Butte and Superior and in a new territory. So far nothing has been done but development work. They have a large four compartment shaft that has a depth of 1,365 feet, 628 feet of which was sunk this year.

**THE BUTTE AND LONDON MINING CO.**

This property is being operated by the Rainbow Lodge Developing Company. This shaft has not been worked in a number of years, but recently it has been unwatered and large pumps have been installed. Up to August 1, 30 men were employed.

**THE ELM ORLU MINING COMPANY, W. A. Clark, Jr., Manager, J. F. Case, Superintendent:**

This mine has a three compartment shaft and is well ventilated, being connected with the Pilot Butte and Black Rock mines. Heretofore this mine has been worked principally for copper and silver and had developed large bodies of zinc ore which were deposited on the dump waiting for the completion of a zinc concentrator on Timber Butte. They are shipping at present 400 tons daily and are employing 150 miners and 30 surface men.

The new concentrator on Timber Butte also belongs to the Clark interests. It has recently been completed and is a success mechanically and in recovery. Their recovery last month was 96 per cent of the head values. One hundred men are employed at the mill and ten on construction work.

**EAST BUTTE COPPER MINING COMPANY, Oscar Rohan, General Manager; Andy G. Gray, Foreman:**

This property is worked through the Pittsmonst and Dutton shafts. The Pittsmonst shaft No. 2 is three compartment and is 1,770 feet in depth; 185 feet of which was sunk this year. The Pittsmonst shaft No. 1 is 1,200 feet in depth and is used principally for ventilation. Up to August 16, this company employed 279 men underground and 266 on the surface and in the mill. At present 33 men are employed.

**BALLAKLAVA MINING COMPANY, Mr. J. Newton, Superintendent; John Tibbitts, Foreman.**

This property has a three compartment shaft 1,600 feet in depth and is connected with the Modoc on different levels. Up to August 15, there were 45 miners and 12 surface men employed. At present there are four men employed.

**ALEX SCOTT MINING COMPANY, Mr. F. Stone, Superintendent; George Richards, Foreman.**

The shaft is two compartment, 2,150 feet in depth. Up to August 16, 70 miners and 18 surface men were employed. It is connected with the West Colusa on several of the different levels.

**TOULUMNE MINING COMPANY, Ed. Hickey, Manager; John Nenan, Superintendent.**

Has a three compartment shaft 2,680 feet in depth, 200 feet of which was sunk this year. Employs 92 miners and 20 surface men. It is connected with the Modoc and the Speculator.

**BUTTE AND SUPERIOR COPPER MINING COMPANY, J. L. Bruce, General Manager; Angus McLeod, Mine Superintendent.**

Has a three compartment shaft 1,600 feet in depth, which is well ventilated, being connected with the Elm Orlu on different levels, and to the Butte and Milwaukee by large X cuts on the 1200 foot level. This mine is said to be the largest zinc mine in the world, and it is a fact that 25 per cent of the zinc produced in the United States comes from this mine. They have recently installed a new Nordberg hoist, flat cable 6½ inches and ⅝-b inches, 5 ton skips with one deck cage attached which are changed to three deck cages when hoisting or lowering men. They are employing at this mine 700 miners, 195 mill men and 185 surface men, and are mining and treating on an average of 1,300 tons of zinc ore daily.

**DAVIS DALY COMPANY, Wm. Creedon, General Manager; Wm. Fraser, Foreman.**

The only work being done at present by this company is at the Colorado mine, which shaft is three compartment and 2,300 feet in depth, 300 feet of which was sunk this year. It is the intention of the company to sink to a depth of 2,600 feet. They are employing 37 miners and 25 surface men.

**PILOT BUTTE MINING COMPANY, Paul Gow, Superintendent:**

Has a three compartment shaft which is 2,400 feet in depth, 200 feet of which was sunk this year. Employs 31 miners and 12 surface men. It is connected with the Elm Orlu and Black Rock mines. There was a ledge of high grade copper ore encountered while cutting the station on 2,400 foot level of this mine.

**BUTTE AND DULUTH MINING COMPANY, A. B. Wolvin, General Manager; C. F. Sherwood, Superintendent.**

This property is located east of the Pittsmtont mine and was formerly known as the Brundy Group. It promises to be one of the large copper producers of the camp, as they have immense bodies of ore on surface that average 2 per cent copper. This ore is treated by the leaching process. It is crushed and leached in what is known as the Wolvin Leaching Machine, with a solution of sulphuric acid. The copper recovered from the solution is electrolytic 99.8 per cent purity. The recovery of the head values is 90 per cent. They are employing 31 miners, 42 mill men and 40 men on construction at present. The capacity of the mill at present is 200 tons daily. When completed it will have a capacity of 1,000 tons daily.

**BUTTE AND ZENITH COPPER COMPANY, Mr. Newton, Manager; Wm. Gibson, Foreman:**

This property is located near Silver Bow junction. It has a shaft down 625 feet, 187 feet of which has been sunk this year. They have also done 600 feet of cross-cutting and employed up to August 1, 16 miners and 9 surface men.

**BUTTE MAIN RANGE COPPER CO., Pat Sheehan, Superintendent.**

This company owns a number of claims east of Meaderville and have installed new machinery and started operation on the old Sinbad shaft, which is 600 feet deep, employing 15 men.

Respectfully submitted,

W. B. OREM,  
Mine Inspector.

---

---

# **REPORT OF STATE COAL MINE INSPECTOR**

---

---



## Report of Coal Mine Inspector

Helena, Montana, December 1, 1914.

Honorable S. V. Stewart,  
Governor of Montana,  
Helena, Montana.

Dear Sir:

In accordance with the provisions of the Montana Statutes I have the honor to submit herewith the Seventh Biennial Report of the Coal Mine Inspector of the State of Montana, covering the two-year period ended October 31st, 1914.

I am pleased to state that the years ended have been free from labor troubles, nothing occurring to mar the pleasant relationship existing between the employer and employees, each living in the utmost confidence that the other is endeavoring to adhere rigidly to the conditions of the obligations all have assumed. From information received at this office I have every reason to believe that a higher average wage is paid to the miner than he ever received before, and though the demand for labor was not what it might have been, still every one engaged in the occupation appeared to be satisfied.

No great accident has happened in any of the mines of the state, due I should say, to the interest and care taken by the men, whose duties require them to look after the welfare of the miners under their supervision. There have been some fatalities, but as long as coal is mined these will occur. All we can do to help prevent them is to place every possible means of safety around the men as far as lies in our power; this we are doing, and I am glad to say that I am receiving the active co-operation of the managers of the different companies in all actions taken and recommendations made in this respect. Not only do they co-operate with me, but many of them go further and take the initiative in devising means for reducing injuries and fatalities to a minimum. This is especially so with some of the larger companies who are sparing no expense to bring about conditions of safety in mines that are decidedly worthy of emulation.

### Stoppings.

The life and well-being of a mine may truly be said to depend upon the character of its stoppings. If they are built improperly of poor material and are leaky, they will not fill the purpose for which they were intended. Ventilation and safety in mines can only be obtained and maintained by stoppings built in accordance with the very best methods and constructed of the very best material, so that when completed they will require very little care and attention during the life of the mine. In the Red Lodge and Roundup fields, a stopping composed of logs is used and is considered a very good one. Another stopping used in the Roundup field is built of rock and cement, which is also very good and is durable. I would recommend that all companies who are still building stoppings out of brattice work break away from the system and use more substantial material, which will insure their getting more air to the working face.

### First Aid to the Injured.

The First Aid movement is taking on a more firm and permanent hold in this state. Wherever classes have been organized and given support by the companies they have thrived and proven to be a great benefit to those receiving injuries in the mines. Classes under the supervision of a physician of good repute soon become adepts in the art of rendering first aid treatment. Members of these classes are scattered through various parts of the mine and American Red Cross boxes are located at convenient places throughout the mine, so that should a workman receive injuries he receives prompt attention from the First Aid Team.

### Ventilation.

The ventilation of most of the large mines of the state is very satisfactory, long entries receiving a requisite amount of fresh air equally with the shorter entries, the idea being to always furnish an abundant supply to all working places.

### Production.

Following is the number of miners employed and the tons of coal produced, by years, as gathered by the State Coal Mine Inspector since the creation of the department in 1901:

Years	Production (Tons)	Men Employed	Value
1901 .....	1,442,569	2,158	
1902 .....	1,502,115	1,938	
1903 .....	1,514,538	2,418	
1904 .....	1,471,504	1,813	
1905 .....	1,743,771	2,289	
1906 .....	1,502,200	2,309	
1907 .....	2,030,564	3,329	
1908 .....	1,978,347	3,642	
1909 .....	2,541,679	3,864	
1910 .....	2,970,246	4,117	
1911 .....	2,913,406	3,776	
1912 .....	3,143,799	3,598	
1913 .....	3,365,712	3,768	\$5,611,079
1914 .....	2,938,671	3,660	4,714,023

### Wash Houses.

There have been several complaints made relative to companies failing to comply with the law in regard to wash houses, all of which have been investigated and properly taken care of.

### Competency.

There was one examination for Mine Foreman and Fire Boss held at Red Lodge in May; eight candidates appeared for examination and passed. Below are the names of persons examined, class of examination and fees for same:

Name.	Examined for	Fee.
Carl Brooks Cheek .....	Mine Foreman .....	\$5.00
James M. Barrett .....	Mine Foreman .....	5.00
Elmer Price .....	Mine Foreman .....	5.00
L. A. Woodbury .....	Mine Foreman .....	5.00
John Sullivan .....	Mine Foreman .....	5.00
John P. Kane .....	Mine Foreman .....	5.00
John P. Johnson .....	Mine Foreman .....	5.00
C. W. Miles .....	Fire Boss .....	5.00
		<hr/>
		\$40.00
Frank J. Maykuth .....	Permit Granted .....	2.00
John P. Johnson .....	Permit Granted .....	2.00
H. H. Pinkney .....	Lieu Cert. ....	5.00
Wilmer Wright .....	Lieu Cert. ....	5.00
		<hr/>
		\$14.00
Total amount remitted to State Treasurer .....		\$54.00

## ACCIDENTS IN AND AROUND THE COAL MINES OF

County	Date	Name of Company	Locality	Name of Person	Age	Nationality
Carbon	Nov. 11, 1912	N. W. I. Co.	Red Lodge	Oscar Kalo	30	Finlander
Carbon	Nov. 16, 1912	N. W. I. Co.	Red Lodge	Mat Talbott	35	Finlander
Carbon	Nov. 23, 1912	N. W. I. Co.	Red Lodge	Antonio Mallano	32	Italian
Carbon	Nov. 29, 1912	N. W. I. Co.	Red Lodge	Paul Skina	37	Austrian
Carbon	Dec. 26, 1912	N. W. I. Co.	Red Lodge	Angelo Phillips		Italian
Carbon	Jan. 1, 1913	N. W. I. Co.	Red Lodge	Mat Oya	35	Finlander
Carbon	Jan. 7, 1913	N. W. I. Co.	Red Lodge	Frank Bedula	23	Italian
Carbon	Jan. 8, 1913	N. W. I. Co.	Red Lodge	Peter Zankos	23	Polander
Carbon	Jan. 22, 1913	N. W. I. Co.	Red Lodge	Daniel Repac	25	Austrian
Carbon	Feb. 10, 1913	N. W. I. Co.	Red Lodge	John Yhnni	50	Finlander
Carbon	Feb. 11, 1913	N. W. I. Co.	Red Lodge	Frank Pobersick	26	Austrian
Carbon	Mar. 26, 1913	N. W. I. Co.	Red Lodge	E. Abrampentilla	48	Finlander
Carbon	Apr. 17, 1913	N. W. I. Co.	Red Lodge	Vinko Gregovich	22	Austrian
Carbon	Apr. 24, 1913	N. W. I. Co.	Red Lodge	Isaac Walders	26	Finlander.
Carbon	May 14, 1913	N. W. I. Co.	Red Lodge	Frank Maki	28	Finlander
Carbon	June 22, 1913	N. W. I. Co.	Red Lodge	Henry Loukka		Finlander
Carbon	July 16, 1913	N. W. I. Co.	Red Lodge	Frank Zibert	25	Polander
Carbon	July 22, 1913	N. W. I. Co.	Red Lodge	John Dalman	27	Finlander
Carbon	July 31, 1913	N. W. I. Co.	Red Lodge	Aug. Koski	30	Finlander
Carbon	July 31, 1913	N. W. I. Co.	Red Lodge	Steve Blazina	30	Austrian
Carbon	Aug. 26, 1913	N. W. I. Co.	Red Lodge	Mat Stelmok	40	Polander
Carbon	Aug. 27, 1913	N. W. I. Co.	Red Lodge	Angelo Rosa	30	Italian
Carbon	Sept. 10, 1913	N. W. I. Co.	Red Lodge	John Cornelio	29	Italian
Carbon	Sept. 10, 1913	N. W. I. Co.	Red Lodge	John Castlenova	34	Italian
Carbon	Oct. 22, 1913	N. W. I. Co.	Red Lodge	Walter Willey	20	American
Carbon	Dec. 8, 1912	A. C. M. Co.	Washoe	Wm. S. Williams	56	English
Carbon	Dec. 13, 1912	A. C. M. Co.	Washoe	Peter Kapovich	24	Montenegrin
Carbon	Jan. 7, 1913	A. C. M. Co.	Washoe	Louis Tokin	20	Austrian
Carbon	Jan. 10, 1913	A. C. M. Co.	Washoe	Gust Jarvi	39	Finlander
Carbon	Feb. 5, 1913	A. C. M. Co.	Washoe	Arthur Holm	25	Swede
Carbon	Feb. 8, 1913	A. C. M. Co.	Washoe	James McAnaa	23	Irish
Carbon	Feb. 20, 1913	A. C. M. Co.	Washoe	Tony Pasco	25	Italian
Carbon	Mar. 6, 1913	A. C. M. Co.	Washoe	Joseph Rossi	33	Italian
Carbon	Sept. 9, 1913	A. C. M. Co.	Washoe	Mike Toner	35	Irish
Carbon	Nov. 22, 1912	S. & S. Coal Co.	Bear Creek	Joe Stacey	23	American
Carbon	Dec. 11, 1912	S. & S. Coal Co.	Bear Creek	Joe Gudja	26	Austrian
Carbon	Dec. 30, 1912	S. & S. Coal Co.	Bear Creek	John F. O'Shea	37	Irish
Carbon	Feb. 3, 1913	S. & S. Coal Co.	Bear Creek	John Wilson	30	Finlander
Carbon	Feb. 11, 1913	S. & S. Coal Co.	Bear Creek	Steve Miller	40	Austrian
Carbon	Jan. 9, 1913	M. C. & I. Co.	Bear Creek	Louis Mauzy	35	French
Carbon	Oct. 20, 1913	M. C. & I. Co.	Bear Creek	Joe Savich		Montenegrin
Carbon	Oct. 21, 1913	M. C. & I. Co.	Bear Creek	Nick Zunilch	26	Austrian
Carbon	Feb. 28, 1913	B. C. Coal Co.	Bear Creek	John Mazik	26	Austrian
Carbon	Aug. 12, 1913	I. Coal Co.	Bear Creek	John Korpil	40	Finlander
Carbon	Oct. 3, 1913	B. C. Coal Co.	Bear Creek	Wm. McDonald		American
Carbon	Oct. 29, 1913	B. C. Coal Co.	Bear Creek	Jos. H. Johnson	19	American
Cascade	Nov. 4, 1912	Nelson Coal Co.	Sand Coulee	Andrew Olson	42	Swede
Cascade	Dec. 24, 1912	Nelson Coal Co.	Sand Coulee	Oscar Salonen	47	Finlander
Cascade	Feb. 8, 1913	Nelson Coal Co.	Sand Coulee	Ludwig Kalkonen		Finlander
Cascade	Mar. 1, 1913	Nelson Coal Co.	Sand Coulee	Cal. Angeline	43	Italian
Cascade	Apr. 12, 1913	Nelson Coal Co.	Sand Coulee	Hyl. Rammikka	32	Finlander
Cascade	June 17, 1913	Nelson Coal Co.	Sand Coulee	Toivi Wilmehin	23	Finlander
Cascade	June 26, 1913	Nelson Coal Co.	Sand Coulee	Samuel Karl	26	Finlander
Cascade	Mar. 1, 1913	Cot. Coal Co.	Stockett	Joe Hamyo	27	Slavonian
Cascade	Jan. 3, 1913	Cot. Coal Co.	Stockett	Ernest Thomas	27	Swiss
Cascade	Mar. 4, 1913	Cot. Coal Co.	Stockett	Nick Urikh	29	Slavonian
Cascade	May 21, 1913	Cot. Coal Co.	Stockett	Jno. Komodovski	22	Slavonian
Cascade	June 2, 1913	Cot. Coal Co.	Stockett	Mat Laitall	33	Finlander
Cascade	Oct. 31, 1913	Cot. Coal Co.	Stockett	Frank Tabaracci	37	Italian
Cascade	July 3, 1913	Carbon Coal Co.	Sand Coulee	Nick Zuka	27	Austrian
Fergus	Jan. 11, 1913	Serlight & Lilley	Moore	C. H. Lilley	40	American
Fergus	Apr. 30, 1913	National Coal Co.	Lewistown	Neil Boyles	25	Irish-Amer.
Park	Nov. 23, 1913	Maxey Bros.	Chimney Rock	Toney Spolar	38	Austrian
Park	Nov. 29, 1912	Maxey Bros. Son	Chimney Rock	R. L. Davidson	38	American
Musselshell	Nov. 9, 1912	Republic Coal Co.	Klein	Champ Ambrose	54	Italian
Musselshell	Apr. 8, 1913	Republic Coal Co.	Klein	Marcus Popovich	33	Austrian
Musselshell	Apr. 11, 1913	Republic Coal Co.	Klein	John Micklich	37	Austrian
Musselshell	Nov. 30, 1913	Republic Coal Co.	Klein	Gustave Dellinley		
Musselshell	Oct. 31, 1913	Republic Coal Co.	Klein	Step. Patchrick		Austrian.
Musselshell	Aug. 4, 1913	Republic Coal Co.	Klein	David McKee	4	American.
Musselshell	Nov. 23, 1912	Roundup Coal Co.	Roundup	Elvin Gravenen	27	American
Musselshell	May 14, 1913	Roundup Coal Co.	Roundup	John Kumbrell	35	Austrian.
Musselshell	July 13, 1913	Roundup Coal Co.	Roundup	Andy Bublsh	30	Austrian
Musselshell	Sept. 2, 1913	Roundup Coal Co.	Roundup	James White	38	American
Musselshell	May 23, 1913		Roundup	Stanley Ujczak	37	Polander
Musselshell	Oct. 6, 1913		Rock Springs	Frank Hartman	19	American
Musselshell	Aug. 14, 1913	Davis Coal Co.	Roundup	Camille Hubert	21	French

MONTANA FROM OCTOBER 31, 1912, TO OCTOBER 31, 1913.

Occupation	Killed or Injured	Married or Single	No. of Childr'n	Cause
Miner	Injured	Married	3	Falling roof.
Miner	Injured	Single	..	Falling roof.
Miner	Injured	Single	..	Falling roof, fractured left leg.
Miner	Injured	Married	3	Falling roof, fractured two ribs.
Miner	Injured	..	..	Moving car.
Miner	Killed	Married	3	Falling roof.
Miner	Injured	Single	..	Falling roof, left leg fractured.
Miner	Injured	Single	..	Moving cars, fractured left arm.
Laborer	Injured	Single	..	Surface accident, broken arm.
Miner	Injured	Married	7	Falling coal, fractured collar bone.
Miner	Injured	Single	..	Falling timber, scalp contusion.
Miner	Injured	Single	..	Falling coal, right leg broken.
Miner	Injured	Single	..	Falling coal, leg broken
Miner	Killed	Single	..	Falling coal.
Miner	Killed	Single	..	Falling roof.
Miner	Injured	Single	..	Moving cars, bruised legs and body.
Miner	Injured	Single	..	Moving cars, bruised foot.
Miner	Injured	Married	2	Chopped off toes.
Miner	Injured	Married	3	Falling coal, right arm broken.
Trackman	Injured	Married	1	Moving cars, badly lacerated leg.
Miner	Injured	Single	..	Scalp wounds.
Miner	Injured	Single	..	Falling roof, bruised foot and leg.
Miner	Injured	Single	..	Falling roof, left leg dislocated.
Miner	Injured	Married	1	Falling roof, right hand cut.
Motorman	Killed	Single	..	Motor and moving trip.
Trackman	Injured	Married	5	Falling roof, left hip bruised.
Miner	Injured	Single	..	Falling roof, cut on back of head.
Driver	Injured	Single	..	Moving cars, left leg cut.
Miner	Injured	Married	..	Moving cars, cut on head.
Driver	Injured	Single	..	Moving cars, right knee cut.
Driver	Injured	Married	..	Moving cars, left arm broken.
Driver	Injured	Single	..	Moving cars, foot and toes mashed.
Driver	Killed	Single	..	Moving trip.
Miner	Killed	Single	..	Falling coal.
Rope-rider	Injured	Single	..	Moving trip, cut on right leg.
Loader	Injured	Single	..	Falling roof, fractured right leg.
Office-man	Killed	Married	..	Falling roof and timber.
Miner	Injured	Married	1	Moving cars, leg badly bruised
Machine-runner	Injured	Single	..	Finger cut off.
Motorman-helper	Injured	Single	..	Moving trip, fractured ribs.
Miner	Injured	..	..	Tipple platform broke foot.
Laborer	Injured	Single	..	Powder explosion, burned face.
Miner	Injured	..	..	Falling coal, fractured left leg.
Loader	Injured	Married	3	Powder explosion, burned neck and arms.
Nipper	Injured	Single	..	Moving cars, bruised leg and hips.
Outside Foreman	Injured	Married	3	Moving trip, legs broken and bruised.
Miner	Injured	Single	..	Falling coal, broken bone in foot.
Miner	Injured	Married	5	Falling roof, broken collar bone.
Miner	Injured	Single	..	Falling roof, bruised knee.
Loader	Injured	Single	..	Falling roof, mashed foot.
Miner	Injured	Single	..	Falling roof, compound fractured leg.
Miner	Injured	Single	..	Falling coal and roof.
Miner	Killed	Single	..	Falling coal.
Loader	Killed	Married	1	Falling roof.
Outside Foreman	Injured	Single	..	Moving cars, bones broken in foot.
Driver	Injured	Married	1	Moving cars, hand badly bruised.
General Helper	Injured	Single	..	Railroad car on surface, bruised.
Machine-runner	Injured	Single	..	Falling coal, hip dislocated.
Loader	Killed	Married	3	Falling coal.
Loader	Injured	Married	..	Falling roof, foot cut and broken.
Miner	Killed	Married	1	Falling coal.
Miner	Killed	Married	1	Falling roof.
Miner	Injured	Married	5	Falling coal, sprained ankle.
Miner	Injured	Married	4	Falling coal, slight injury to ankle.
Laborer	Killed	Single	..	Moving cars.
Night Cager	Killed	Married	4	Moving cage.
Miner	Injured	Married	3	Falling coal from roof, leg broken.
Driver	Killed	..	..	Explosives in powder charged hole.
Miner	Injured	..	..	Moving cars, left leg broken.
Driver	Killed	..	..	Scalded to death.
Miner	Injured	Single	..	Cable caught hand and crushed it.
Driver	Injured	Married	2	Moving cars, right leg broken.
Company man	Injured	Married	3	Falling timber, left leg fractured.
Machineman	Injured	Married	3	Left leg broken.
Miner	Killed	Single	..	Falling roof.
Sheep tender	Killed	Single	..	Caving dirt bank.
Driver	Injured	Single	..	Fall of roof, contusion left knee.

## ACCIDENTS IN AND AROUND THE COAL MINES OF MON

County	Date	Name of Company	Locality	Name of Person	Age	Nationality
Carbon	Dec. 12, 1913	N. W. I. Co.	Red Lodge	Otto Prossl	24	Finlander
Carbon	July 14, 1914	N. W. I. Co.	Red Lodge	Frank Bria	34	Italian
Carbon	July 22, 1914	N. W. I. Co.	Red Lodge	Wm. O'Neill	27	American
Carbon	Aug. 31, 1914	N. W. I. Co.	Red Lodge	Adolph Turri	42	Finlander
Carbon	Oct. 12, 1914	N. W. I. Co.	Red Lodge	Bolus Klawcunus	25	Austrian
Carbon	Oct. 13, 1914	N. W. I. Co.	Red Lodge	Wm. Malano	30	Italian
Carbon	Oct. 22, 1914	N. W. I. Co.	Red Lodge	Ralph Lumley	38	American
Carbon	Oct. 23, 1914	N. W. I. Co.	Red Lodge	C. W. Miles	34	American
Carbon	June 8, 1914	N. W. I. Co.	Red Lodge	Klem. Klawcunus	25	Austrian
Carbon	June 15, 1914	N. W. I. Co.	Red Lodge	Tom Jackovich	28	Austrian
Carbon	July 11, 1914	N. W. I. Co.	Red Lodge	Martin Rapp	48	Austrian
Carbon	Sept. 9, 1914	N. W. I. Co.	Red Lodge	Vincent Iozzo	30	Italian
Carbon	Oct. 7, 1914	N. W. I. Co.	Red Lodge	Chas. Fosseltin	35	Finlander
Carbon	Jan. 23, 1914	N. W. I. Co.	Red Lodge	Jacob Rosch	32	Austrian
Carbon	Feb. 5, 1914	N. W. I. Co.	Red Lodge	Tony Malano	28	Italian
Carbon	May 12, 1914	N. W. I. Co.	Red Lodge	Wm. Jones		American
Carbon	May 14, 1914	N. W. I. Co.	Red Lodge	Hemming Savola	28	Finlander
Carbon	June 1, 1914	N. W. I. Co.	Red Lodge	Mat Jackovich	29	Austrian
Carbon	Jan. 13, 1914	N. W. I. Co.	Red Lodge	Tom Checkel	28	Italian
Carbon	Dec. 13, 1914	N. W. I. Co.	Red Lodge	Walno Hongisto	25	Finlander
Carbon	Apr. 23, 1914	A. C. M. Co.	Washoe	John Andrys	27	Austrian
Carbon	Jan. 27, 1914	A. C. M. Co.	Washoe	Alfred Ingham	31	American
Carbon	Nov. 5, 1913	S. & S. Co.	Bear Creek	Gajo Samarzhich	23	Austrian
Carbon	Dec. 13, 1913	Int. Coal Co.	Bear Creek	George Marks	37	Austrian
Carbon	Nov. 4, 1913	Int. Coal Co.	Bear Creek	Joe Toska	24	Italian
Carbon	July 11, 1914	Bear C. Coal Co.	Bear Creek	Robert C. Ralph	25	American
Carbon	May 7, 1914	Bear C. Coal Co.	Bear Creek	Chas. Owens	20	American
Carbon	Nov. 11, 1913	Bear C. Coal Co.	Bear Creek	Joe Gurgovich	28	Montenegro
Carbon	Dec. 2, 1913	Bear C. Coal Co.	Bear Creek	John Harvat	30	Austrian
Carbon	Dec. 8, 1913	Bear C. Coal Co.	Bear Creek	Mike Pekovich	22	Montenegro
Carbon	June 23, 1914	Mont. C. & I. Co.	Bear Creek	Steve Cavallo	30	Austrian
Carbon	Nov. 11, 1913	Mont. C. & I. Co.	Bear Creek	Jack Sewell	27	American
Carbon	Nov. 17, 1913	Mont. C. & I. Co.	Bear Creek	Dan Perovich	20	Montenegro
Carbon	Dec. 2, 1913	Mont. C. & I. Co.	Bear Creek	V. Dragich	27	Austrian
Cascade	Nov. 19, 1913	Lochray Coal Co.	Tracy	U. Evangelisto	31	Italian
Cascade	Dec. 9, 1913	Cot. Coal Co.	Stockett	Julius Bertochini	26	Italian
Cascade	Nov. 2, 1913	Lochray Coal Co.	Tracy	S. R. Williamson		American
Cascade	May 6, 1914	A. C. M. Co.	Tracy	Sam Bolch	27	Montenegro
Cascade	June 20, 1914	Cot. Coal Co.	Stockett	Victor Aho	35	Finlander
Cascade	July 25, 1914	Cot. Coal Co.	Stockett	George Swartz	21	Slavonian
Cascade	July 28, 1914	Cot. Coal Co.	Stockett	Joseph Kostelink	22	Slavonian
Cascade	Oct. 29, 1914	Cot. Coal Co.	Stockett	Andrew Lally	37	Finlander
Cascade	Oct. 29, 1914	Cot. Coal Co.	Stockett	Mat Jarvi	30	Finlander
Cascade	Oct. 29, 1914	Cot. Coal Co.	Stockett	Oscar Salo	35	Finlander
Cascade	Nov. 4, 1913	Nelson Coal Co.	Sand Coulee	James Bravr	31	Italian
Cascade	Nov. 15, 1913	Nelson Coal Co.	Sand Coulee	David O'Hare	20	American
Cascade	Nov. 26, 1913	Nelson Coal Co.	Sand Coulee	George Vernon	21	American
Cascade	Sept. 18, 1914	Nelson Coal Co.	Sand Coulee	John Sabo	32	Austrian
Fergus	Aug. 8, 1914	Brown Coal Co.	Sand Coulee	Joe Charrere	34	Italian
Fergus	Dec. 14, 1913	Cot. Coal Co.	Lehigh	Edward Mader	23	German
Musselshell	Apr. 7, 1914	Cot. Coal Co.	Lehigh	John King	32	Scotch
Musselshell	Mar. 27, 1914	Republic Coal Co.	Klein	A. Brandon	27	Scotch
Musselshell	June 24, 1914	Republic Coal Co.	Klein	Thos. Brammer	42	English
Musselshell	Jan. 10, 1914	Republic Coal Co.	Klein	Frank Kubetich	37	Austrian
Musselshell	Feb. 26, 1914	Republic Coal Co.	Klein	John Jones	35	Welshman
Musselshell	Feb. 12, 1914	Republic Coal Co.	Klein	Mike Butarik	33	Austrian
Musselshell	Feb. 26, 1914	Republic Coal Co.	Klein	Emil Shanks	23	Austrian
Musselshell	Mar. 12, 1914	Republic Coal Co.	Klein	James Porter	29	American
Musselshell	Mar. 23, 1914	Republic Coal Co.	Klein	A. Morrison	26	Scotch
Musselshell	Sept. 30, 1914	Republic Coal Co.	Klein	Otto Pierce	23	American
Musselshell	May 4, 1914	Roundup Coal Co.	Roundup	Thos. Hogg	24	American
Musselshell	May 5, 1914	Roundup Coal Co.	Roundup	Morris Ussin	32	French
Musselshell	May 11, 1914	Roundup Coal Co.	Roundup	Clarence Kelly	25	American
Cascade	July 13, 1914	Cot Coal Co.	Stockett	Umb. Umeritti	35	Italian

TANA FROM OCTOBER 31, 1913, TO OCTOBER 31, 1914.

Occupation	Killed or Injured	Married or Single	No. of Children	Cause
Miner	Killed	Single	..	Fall of coal.
Miner	Killed	Married	3	Fall of rock
Outside man	Killed	Married	..	Run over by cars.
Miner	Killed	Single	..	Fall of rock.
Miner	Injured	Single	..	Falling rock broke leg.
Miner	Injured	Single	..	Falling rock broke leg.
Miner	Injured	Married	4	Falling rock broke both legs.
Boss driver	Injured	Married	..	Cable whipped and broke leg.
Miner	Injured	Single	..	Falling roof, broke leg.
Miner	Injured	Single	..	Falling rock fractured spine.
Miner	Injured	Married	2	Falling coal, badly bruised.
Miner	Injured	Single	..	Falling rock, bruised back.
Miner	Injured	Single	..	Moving car, injury not serious.
Miner	Injured	Married	3	Falling rock broke leg.
Miner	Injured	Single	..	Moving car, breaking two ribs.
Driver boss	Injured	Married	2	Moving car, breaking legs.
Miner	Injured	Single	..	Falling rock, broke leg.
Miner	Injured	Single	..	Falling coal, broke leg.
Miner	Injured	Single	..	Falling coal, broke leg.
Miner	Injured	Single	..	Falling roof, fractured leg.
Miner	Killed	Single	..	Moving cars.
Driver	Injured	Married	..	Moving cars, hip dislocated.
Miner	Killed	Single	..	Falling roof.
Miner	Killed	Single	..	Falling roof.
Loader	Injured	Single	..	Moving cars, leg fractured.
Rope rider	Injured	Single	..	Moving cars, leg fractured.
Nipper	Injured	Single	..	Moving cars, burnt by wire.
Motorman	Injured	Single	..	Moving motor, hand hurt.
Tippleman	Injured	Married	5	Caught by moving cars.
Car pusher	Injured	Single	..	Moving cars, forearm injured.
Miner	Injured	Single	..	Falling coal, head cut.
Machine, helper	Injured	Married	..	Flesh wounds on ankle.
Miner	Injured	Single	..	Falling roof, foot injured.
Driver	Injured	Single	..	Moving cars, bruised back and ribs.
Miner	Killed	Married	1	Powder explosion.
Outside man	Killed	Single	..	Struck by cars on surface.
Outside man	Injured	Married	3	Coal falling from tipple.
Driver	Injured	..	..	Moving cars, badly crushed.
Machine runner	Injured	..	..	Falling coal, foot crushed.
Rope cutter	Injured	Single	..	Moving trip, badly crushed.
Connecting man	Injured	Single	..	Moving cars, knee and side bruised.
Mining Mach. Help	Injured	Single	..	Caught finger in machine.
Mining Mach. Help	Injured	..	..	Powder explosion, badly burned.
Mining Mach. Help	Injured	..	..	Powder explosion, badly burned.
Miner	Injured	..	..	Falling roof, leg broken.
Driver	Injured	Married	..	Moving cars, thumb cut off.
Rope Rider	Injured	Single	..	Moving trip, bruised leg.
Miner	Injured	Married	..	Falling coal, broken leg.
Miner	Injured	Married	2	Concussion from shaft.
Outside laborer	Killed	..	..	Railroad cars on surface.
Pumpman	Injured	Married	1	Hit by lagging in shaft.
Miner	Killed	Married	1	Falling rock.
Miner	Killed	Single	..	Falling rock.
Miner	Injured	Single	..	Falling coal, right shoulder bruised.
Laborer	Injured	..	..	Moving cars, right shoulder bruised.
Miner	Injured	..	..	Falling roof, left foot bruised.
Laborer	Injured	..	..	Moving motor, fractured collar bone.
Driver	Injured	Single	..	Moving car, badly bruised.
Miner	Injured	Single	..	Hauling coal, broken arm.
Driver	Injured	Single	..	Loaded car broke left leg.
Driver	Injured	Single	..	Falling rock, left foot bruised.
Driver	Injured	Single	..	Moving cars, bruised about hips.
Fireman	Injured	..	..	Machinery fell on foot.
Loader	Injured	Single	..	Falling roof, leg fractured.

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED AND CLASSIFIED LIST OF MEN EMPLOYED, 1913.

County	Name of Mine	Location	Days Operated	Miners Employed	Inside Men Employed	Outside Men Employed	Total Production Tons
Blaine.....	Milk River Coal Co.....	Chinook .....	350	12	...	...	7,744
Blaine.....	Emil Guertzgen.....	Chinook .....	163	1	...	...	469
Carbon.....	Bridger Coal & Imp. Co....	Bridger .....	290	4	...	...	1,452
Carbon.....	Simon Brothers.....	Bridger .....	192	3	...	...	1,435
Carbon.....	Bituminous Coal Co.....	Fromberg .....	159	23	...	...	10,407
Carbon.....	N. W. I. Co.....	Red Lodge .....	249	...	751	178	927,166
Carbon.....	A. C. M. Co.....	Washoe .....	219	...	171	21	149,268
Carbon.....	International Coal Co.....	Bear Creek .....	156	119	...	...	50,386
Carbon.....	Alba Coal Co.....	Fromberg .....	107	10	...	3	5,550
Carbon.....	Bear Creek Coal Co.....	Bear Creek .....	...	162	...	...	82,156
Carbon.....	S. & S. Coal Co.....	Bear Creek .....	200	56	13	...	45,866
Cascade.....	Sand Coulee Coal Co.....	Sand Coulee .....	214	6	...	...	3,000
Cascade.....	Carbon Coal & Coke Co....	Sand Coulee .....	222	...	39	6	53,686
Cascade.....	O'Neill & Carr.....	Belt .....	365	20	...	...	18,574
Cascade.....	James Brodie & Son.....	Belt .....	243	18	...	...	9,828
Cascade.....	Millard Coal Co.....	Belt .....	175	10	...	...	3,809
Cascade.....	Stainsby Latham Coal Co...	Stockett .....	205	12	...	...	9,384
Cascade.....	Lochray Coal Co.....	Tracy .....	241	125	...	12	141,468
Cascade.....	Calone & Johnson.....	Belt .....	306	13	...	...	8,140
Cascade.....	Orr Brothers.....	Belt .....	135	2	...	...	599
Cascade.....	Brown Coal Co.....	Sand Coulee .....	203	54	...	...	47,907
Cascade.....	A. C. M. Co.....	Belt .....	71	97	97	27	29,037
Cascade.....	Cottonwood Coal Co.....	Stockett .....	242	302	302	96	404,354
Cascade.....	Nelson Coal Co.....	Sand Coulee .....	293	117	117	24	184,375
Carbon.....	Montana Coal & Iron Co...	Bear Creek .....	...	...	...	...	115,953
Custer.....	Kircher Coal Co.....	Miles City .....	143	6	6	...	1,983
Chouteau...	Skinner & Brown.....	Box Elder .....	100	4	...	...	775
Chouteau...	Big Sandy Coal Co.....	Big Sandy .....	300	9	...	...	2,023

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED AND NUMBER  
OF MEN EMPLOYED, 1913 (CONTINUED).

County	Name of Mine	Location	Days Operated	Men Employed	Total Production Tons
Chouteau....	Macton Coal Co.....	Big Sandy .....	52	10	1,198
Dawson....	Jennison Coal Co.....	Fairview .....	...	...	150
Dawson....	Wm. P. Hughes.....	Willow Creek .....	221	3	1,319
Fergus....	Sharp Brothers.....	McDonald .....	122	4	1,100
Fergus....	Mat Tus .....	McDonald .....	194	2	970
Fergus....	A. H. Brew.....	McDonald .....	200	12	3,500
Fergus....	Star Coal Co.....	McDonald .....	110	3	573
Fergus....	Sam Schultz.....	Windham .....	240	3	1,606
Hill.....	McDermott & Sone.....	West Butte .....	221	5	1,347
Hill.....	A. G. Staton.....	Havre .....	150	4	1,420
Hill.....	J. R. Alcot.....	Havre .....	280	10	6,250
Hill.....	H. Earl Clack.....	Havre .....	190	3	1,926
Hill.....	G. J. Ayers.....	Havre .....	276	1	829
Hill.....	Northern Coal Co.....	Havre .....	200	12	7,441
Missoula....	Hell Gate Coal Co.....	Missoula .....	209	7	1,549
Musselshell..	Davis Coal Co.....	Roundup .....	254	91	78,809
Musselshell..	Roundup Coal Mining Co.....	Roundup .....	278	361	346,803
Musselshell..	Republic Coal Co.....	Klein .....	274	452	531,920
Musselshell..	Pine Creek Coal Co.....	Roundup .....	200	50	24,984
Park.....	Washington, Mont. Coal Co.....	Chimney Rock .....	131	53	17,269
Park.....	Anderson & Evans.....	Hoffman .....	133	39	9,546
Sheridan....	T. R. Young.....	Med. Lake .....	135	3	820
Sheridan....	Richardson Brothers .....	Antelope .....	254	2	1,210
Sheridan....	George L. Onstad.....	Coalridge .....	310	3	3,565

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED AND CLASSIFIED LIST OF MEN EMPLOYED, 1914.

County	Name of Mine	Location	Days Operated	Machine Men and Helpers Employed	Loaders Employed	Miners Employed	Inside Day Men Employed	Outside Day Men Employed	Total Production Tons
Blaine.....	Emil Guertzen .....	Chinook .....	193	...	...	1	...	1	675
Blaine.....	Milk River Coal Co.....	Chinook .....	315	...	...	10	2	...	5,405
Blaine.....	C. J. Carrico.....	Chinook .....	200	...	...	6	1	...	796
Carbon.....	N. W. I. Co.....	Red Lodge .....	226	...	...	608	160	145	860,638
Carbon.....	A. C. M. Co.....	Washoe .....	187	...	...	121	52	22	130,450
Carbon.....	International Coal Co.....	Bear Creek .....	173	10	43	9	13	19	57,477
Carbon.....	Bridger Coal Mining Co.....	Bridger .....	160	1	8	3	7	...	4,939
Carbon.....	Fromberg Coal Co.....	Fromberg .....	147	2	11	...	6	4	11,166
Carbon.....	Simon Brothers.....	Bridger .....	179	...	...	2	1	...	650
Carbon.....	Barrett & Barrett .....	Joliet .....	176	...	...	2	1	...	1,231
Carbon.....	Alba Coal Co.....	Fromberg .....	77	1	4	...	3	...	2,637
Carbon.....	Montana Coal & Iron Co.....	Bear Creek .....	195	12	60	30	37	20	144,592
Carbon.....	S. & S. Coal Co.....	Bear Creek .....	150	6	30	...	12	7	31,113
Carbon.....	Bear Creek Coal Co.....	Bear Creek .....	...	...	...	...	...	...	...
Cascade.....	George W. Merkle.....	Belt .....	20	...	...	43	10	8	1,841
Cascade.....	Calone & Johnson.....	Belt .....	307	2	4	...	1	1	6,350
Cascade.....	Millard .....	Belt .....	175	2	8	...	...	...	3,970
Cascade.....	Orr Mine .....	Belt .....	158	...	...	...	1	...	500
Cascade.....	Carbon Coal Co.....	Sand Coulee .....	112	4	10	...	8	5	26,666
Cascade.....	Brown Coal Co.....	Sand Coulee .....	194	...	...	45	10	5	52,946
Cascade.....	Lochray Coal Co.....	Sand Coulee .....	70	4	12	116	24	20	49,809
Cascade.....	A. C. M. Co.....	Tracy .....	109	9	18	66	30	16	83,626
Cascade.....	Stainsby & Latham.....	Stockett .....	122	...	...	7	2	1	6,382
Cascade.....	Cottonwood Coal Co.....	Stockett .....	240	85	110	10	106	79	411,150
Cascade.....	James Brodie & Son.....	Belt .....	208	1	3	...	1	1	9,902
Cascade.....	W. J. Harner.....	Belt .....	240	...	...	3	4	2	2,100
Cascade.....	O'Neill & Carr.....	Belt .....	280	...	...	15	3	...	1,859
Cascade.....	Nelson Coal Co.....	Sand Coulee .....	134	6	5	42	17	13	61,029
Cascade.....	Nat'l. Coal Mng. Co.....	Sand Coulee .....	90	6	8	...	6	...	5,134

PRODUCTION OF VARIOUS PROPERTIES, DAYS OPERATED AND CLASSIFIED LIST OF MEN EMPLOYED, 1914 (CONTINUED)

County	Name of Mine	Location	Days Operated	Machine Helpers Employed	Men Employed	Days Employed	Men Employed	Days Employed	Men Employed	Total Production Tons
Chouteau....	Big Sandy Coal Co.....	Big Sandy ..	242	3	10	2	2			2,644
Dawson.....	Jennison Coal Co.....	Fairview ..	280		8	4	1			7,306
Dawson.....	John W. Hill.....	Fairview ..	82		4					556
Dawson.....	Vincent Russell.....	Fairview ..	110		2					405
Fergus.....	M. Z. Tuss Coal Co.....	Lewistown ..	180		4					720
Fergus.....	Spring Creek Fuel Co.....	Lewistown ..	12		6	3	2			56
Fergus.....	Sam Schultz.....	Windham ..	240		2					1,760
Fergus.....	Weingart Brothers.....	Lewistown ..	150		3		1			1,560
Fergus.....	Brew Coal Co.....	Lewistown ..	167		2					870
Hill.....	H. Earl Clack Co.....	Havre ..	172		4					1,575
Hill.....	A. G. Statom.....	Havre ..	240		5					2,520
Hill.....	Fitch & Fritz.....	Havre ..	203		8	4				5,000
Hill.....	G. J. Ayers.....	Havre ..	300		3					1,434
Hill.....	Irwin Dickey ..	Havre ..	154		2					142
Hill.....	J. R. Alcott ..	Havre ..	300		7	1	1			5,694
Missoula.....	Hell Gate Coal Co.....	Missoula ..	60		5	1				831
Musselshell.....	Republic Coal Co.....	Klein ..	273	9	150	100	135	40	500	625
Musselshell.....	Roundup Coal Co. No. 3.....	Roundup ..	286	10	107	92	74	50	378	471
Musselshell.....	Davis Coal Co.....	Roundup ..	151		88	33	21			26,179
Musselshell.....	Pine Creek Coal Co.....	Roundup ..	76		50	4	4			1,800
Musselshell.....	Star Coal Co.....	Musselshell ..	72		5	4	3			850
Park.....	Anderson & Evans.....	Hoffman ..	206		22	7	5			13,550
Park.....	Maxey Bros.....	Chimney Rk ..								
Sheridan.....	Richardson Bros.....	Antelope ..	185		2					1,089
Sheridan.....	Frank J. French.....	Med. Lake..	175		4	1				1,450
Sheridan.....	L. L. Dills.....	Froid ..	200		3	1	1			1,012
Sheridan.....	Guy Allen ..	Med. Lake..	190		3	1				600
Sheridan.....	Wm. Morgan ..	Westby ..	45		2					205
Sheridan.....	L. J. Onstad.....	Plentywood ..	100		1					339
Sheridan.....	Peter Belver ..	Coalridge ..	118		3	3	2			194
Sheridan.....	George L. Onstad ..	Coalridge ..	312		2	1				2,210
Sheridan.....	Erick Hoff ..	Bonetrail ..	200		2					791
Stillwater.....	J. S. Riddle ..	Nye ..	75		2	1	1			300
Stillwater.....	J. D. Loffer ..	Nye ..	221		3	1	1			600

**TOTAL TONNAGE AND VALUE OF COAL AT MINES FOR THE YEARS  
1913 AND 1914 BY COUNTIES.**

	TONNAGE		VALUE	
	1913	1914	1913	1914
Blaine .....	8,213	6,876	\$ 12,055	\$ 12,558
Carbon .....	1,389,640	1,244,893	2,600,973	2,136,777
Cascade .....	917,148	723,264	1,235,536	1,051,007
Chouteau .....	3,996	2,644	12,783	9,254
Dawson .....	150	8,267	300	12,781
Fergus .....	8,067	4,966	23,059	15,360
Hill .....	19,213	16,365	51,982	35,247
Missoula .....	1,540	631	6,158	2,138
Musselshell .....	982,516	907,925	1,499,045	1,389,019
Park .....	27,582	13,550	62,085	30,000
Sheridan .....	5,656	8,390	11,151	17,117
Stillwater .....	.....	900	.....	2,775
Total.....	3,363,729	2,938,671	\$5,605,128	\$4,714,023

**DAYS OPERATED; VARIOUS CLASSES OF MEN EMPLOYED; POUNDS  
POWDER USED; TONS OF COAL SOLD LOCALLY, LOADED ON LOCO-  
MOTIVES, USED AT MINES OR WASTED; BY COUNTIES, FOR  
YEAR 1914.**

County	Properties reported	Average Number of Days Operating	Pick Miners Employed	Machine Operators & Help, Empty d.	Loaders Employed	Inside Daymen Employed	Outside Daymen Employed	Total Number Men Employed	Pounds Powder & Dynamite Used	Tons Coal Sold Locally	Tons Coal Used At mines or Wasted	Tons coal loaded on locomotives	Tons Coal Shipped
Blaine .....	3	235	17	...	...	3	...	20	9,575	6,796	80	.....	.....
Carbon .....	10	167	775	32	156	292	217	1,472	692,905	28,670	144,898	4,518	1,066,807
Cascade .....	15	176	344	119	178	222	151	1,014	405,314	10,761	8,110	5,846	697,847
Chouteau .....	1	242	19	...	3	2	2	17	3,500	2,644	.....	.....	.....
Dawson .....	3	160	14	...	...	4	2	19	5,450	8,217	50	.....	.....
Fergus .....	5	184	17	...	...	3	3	23	5,325	4,861	75	.....	30
Hill .....	6	228	29	...	...	5	1	35	20,695	16,320	45	.....	.....
Missoula .....	1	60	5	...	...	...	1	6	75	631	.....	.....	.....
Musselshell .....	5	115	335	19	257	250	118	979	448,675	8,954	30,420	.....	868,551
Park .....	1	206	22	...	...	7	5	34	5,385	163	1,406	468	11,513
Sheridan .....	9	170	21	...	...	7	4	32	10,925	8,053	217	.....	120
Stillwater .....	2	148	5	...	...	2	2	9	725	900	.....	.....	.....

## Summary.

Total number of lives lost; number of non-fatal accidents; various classes of men employed in and around the coal mines of Montana; per cent of fatal and non-fatal accidents per 1,000 men employed; tonnage and value of coal produced for the years 1913 and 1914.

	1913.	1914.
Mines reported as producing .....	59	61
Machine operators employed .....	199	170
Loaders employed .....	506	594
Miners employed .....	1,633	1,594
Inside daymen employed .....	854	797
Outside daymen employed .....	576	505
Total number of men employed in and around mines .....	3,768	3,660
Tons produced per man employed, per day.....	4.4	4.5
Total tonnage .....	3,365,713	2,938,671
Total value .....	\$5,611,079	\$4,714,023
Total number lives lost .....	18	12
Total number seriously injured .....	59	52
Tons coal produced per life lost .....	186,984	244,889
Tons coal produced per serious accident.....	46,732	56,513
Men employed per fatal accident .....	209	305
Men employed per non-fatal accident.....	52.3	70
Per cent killed per 1,000 men employed .....	4.7	3.3
Per cent injured seriously per 1,000 men employed	19.1	14
Kegs of powder used .....	80,550	64,342
Tons of coal mined by machine .....	1,057,345	1,093,985
Tons of coal mined by hand .....	2,308,368	1,844,686
Per cent of coal mined by machine .....	31	37
Per cent of coal mined by hand .....	69	63

I have received the most courteous attention from the managers of the different properties operating in Montana, and desire at this time to thank them for the assistance which they have given me in the discharge of my duties.

Respectfully submitted,

JOHN SANDERSON,  
State Coal Mine Inspector.



---

---

**REPORT OF STATE BOILER  
INSPECTOR**

---

---



# Report of State Boiler Inspector

Helena, Montana, December 1, 1914.

Honorable S. V. Stewart,  
Governor of Montana,  
Helena, Montana.

Sir:

In compliance with Section 1656 of the Revised Codes of Montana, I have the honor to submit herewith the Thirteenth Biennial Report of the Boiler Inspector of the State of Montana, covering the two year period ended November 30th, 1914.

Statements herein set forth the moneys collected during the past two years, disbursements, number of boilers inspected, number and classes of licenses issued, together with their respective fees.

The work for the past two years shows a considerable increase over all preceding years, both in number of boilers inspected and licenses issued.

When Montana was in its infancy it was supposed that it was only a place for the miner to go and seek his fortune and return to the east with his wealth. Rich deposits of placer gold, and later, ores of gold, silver, copper and lead were found in abundance, and it was not long before Montana stood at the head of the leading precious metal producing states. Soon its advantages as a stock-growing state were noticed; large cattle and sheep men directed their attention to Montana, brought with them the best breeds of stock and took up large holdings in this state. Large herds of cattle and flocks of sheep dotted the valleys, prairies and mountainous districts, feeding on the native nutritious grasses that grow abundantly. As the tide of immigration moved westward, railroads were extended, and the wise, alert and progressive farmer directed his attention to Montana and its rich valleys. When the productive lands of the valleys were settled on, next came the less productive foot-hills, bench-lands and prairies, which compose the unirrigated lands. The stockmen divided their large holdings into small farms, which are today producing prolific yields. Large crops were harvested, and Montana, last but not least, again came to the front and is today one of the greatest grain producing states in the union.

Montana now has three leading industries—mining, stock-raising and farming; any one of which any state may be proud of. The advantages Montana offers to the industrious farmer with little means are every day being sung with praise throughout the east, and soon all the farm lands of Montana will have been settled upon. The Montana farmer is wealthy and no longer follows the old plow horse, but has instead a large traction engine which plows from four to sixteen furrows at a time, is also on the job in the fall to assist him in the harvest of his crop. Traction engines are now scattered to the four corners of the state and the inspection of the same is the most expensive branch of the work of the department.

Formerly the work of this office consisted mostly of the inspection of stationary boilers, located in cities or at mining camps. Today many of the mines are being operated by electricity; while in the cities large plants have been erected which supply heat for many blocks, thereby decreasing the number of stationary boilers, coal consumption and number of engineers employed. When the matter of the inspection of traction engines was first taken up it was a very small branch of the work of the department, as there were only a few scattered throughout the valleys of the state; but today practically 1,000 steam engines are engaged in agricultural work, every farming county in the state being well supplied with tractors.

It is with pleasure that I call your attention to the fact that there has not been a serious boiler explosion in the State of Montana during Your Excellency's administration; nor has there ever been a boiler explosion of a serious nature reported in this state. There are numerous boilers in use throughout the state which require the most careful inspection, and the utmost and extreme care on the part of the engineers and firemen.

Carefully compiled statistics of explosions in the United States, for the years 1913 and 1914, show over 1,000 explosions, resulting in the killing and injuring of nearly as many people, with a very large property loss. Among the most disastrous of these explosions I note the following:

The power plant of the Spring Canyon Coal Company of Storrs, Utah, was wrecked on September 27, 1914, when the boiler blew up, due to a patch giving way. The boiler was hurled through the roof of the building and landed on a hillside 100 yards away. With a roar that could be heard for miles the boiler was blown through the roof of the plant like a rocket, completely wrecking the power house, killing two men outright and injuring five others. The building was of stone, 100 feet by 40 feet, and crumbled like dust. A second of the five boilers on which the mine depends for its power was likewise demolished and the other three boilers were put out of commission. Two of the men met instantaneous death, one being buried under heaps of debris, from which he was extricated half an hour after the explosion by mine workers and residents of the town, the other being literally blown to pieces. At the time of the explosion three boilermakers were at a distant corner of the power house. All were enveloped in clouds of hissing steam and were more or less badly scalded in addition to being struck by flying debris. The most seriously injured of the trio, for whom there is little hope of recovery, aside from being scalded had his back broken and hip crushed. Another's ankle was torn, while a third suffered numerous gashes and bruises. One man was standing in the door of the power house at the time of the explosion, the force of which hurled him head foremost against the tippie walls fifty feet away. His head was split open and he was rendered unconscious; but it is believed that he will recover. Another man was driving a team to town on the road past the mine, 200 yards away from the power house. He was right in the path of a flying piece of the wrecked boiler which struck him on the

leg, tearing the member open. It is estimated that the damage will be in the neighborhood of \$15,000 and \$25,000.

On the night of September 29, 1914, a boiler explosion occurred in Atlantic City, N. J., which is said to be the first in its history. While this is a very good record it is reported that it is more from good luck than any other cause, for there are many boilers there which have never been inspected. Many are insured and receive regular inspections; but there is no assurance that the boilers are being kept in a safe condition. The cause of the explosion was the corrosion of stay-bolts, which had wasted to  $\frac{1}{4}$  inch at the furnace sheet. The safety valve was set for 40 pounds and just previous to the explosion the gauge showed 30 pounds. The sudden release of the water and steam forced the boiler upward through the roof, and it landed on a wagon shed. That it went up a considerable distance is indicated by the broken wall where it rested after falling, five or six feet of which was crushed as though made of cardboard. One lesson from this accident is the necessity of hollow stay-bolts. A leaky stay-bolt can readily be renewed at a cost far less than a new boiler and possibly a suit for damages. In the case mentioned above, one life was lost. Atlantic City has an engineer's license law; but this plant had managed to elude the license law and had no licensed man in charge.

A compressed air tank exploded at the granite quarry of Reed and Vendrot, Quincy, Mass., on January 2nd, 1913; Mr. Reed and an employee, Mitchell Lavoie, were killed; while Armond Vendrot, the other partner, was seriously injured. This was a case of repairing a vessel under pressure.

A sawmill boiler exploded January 3rd, 1913, near Lawrenceburg, Tennessee. One man was killed, and property was damaged to the extent of about \$1,000.

A water front exploded in a range at the Commercial Hotel, Genessee, Idaho, on January 6th, 1913. The explosion was due to the freezing up of the connections. The property damage was considerable, the rear of the hotel being completely wrecked.

The river steamer, "James T. Staples," was destroyed by the explosion of its three boilers on January 9th, 1913, on the Tombigbee River, three miles from Blanden Springs. Nineteen are reported killed and twenty-two injured, as a result of the explosion.

A serious and unusual triple explosion occurred May 6th, 1913, at the plant of the Lapeer Gas and Electric Company of Lapeer, Mich. The accident resulted from the handling of gasoline in some way so that its vapor passing over the boilers exploded. This was followed in succession by the explosion of the boilers and the gas storage tank. One man was fatally injured, and property was damaged to the extent of some \$50,000.

A boiler exploded June 10th, 1913, in the basement of the Beth Israel Hospital, New York City. A fire which followed the explosion created a panic among the patients. One man was killed in the fire.

On July 11th, 1913, a blow-off pipe failed at the Satinet Mill of the Aldrich Mfg. Co., Charlton City, Massachusetts. Peter Jorgenson, engi-

neer and fireman, was scalded so severely that he died the following day.

On August 14th, 1913, a locomotive on the C. M. & St. P. Ry., blew up near Burgoyne, Montana, on account of low water, killing the engineer and conductor and severely injuring two others.

On October 21st, 1913, three men were instantly killed and four others injured, one probably fatally; and practically all of Staten Island was left in darkness as the result of a double boiler explosion at Livingston, L. I., N. Y.

A boiler exploded January 21st, 1914, at Howick Pavilion, Ottawa, Canada. This building was used as an exhibition building in connection with Ottawa's winter fair. Three men are known to have been killed and many others injured, and a very large number of prize horses and live stock, of very great value were killed and injured. The property loss has been estimated as in excess of \$450,000, largely on account of the value of some of the stock killed.

A boiler exploded January 22nd, 1914, at the plant of the Shelby Iron Company, Shelby, Ala. Two men were killed and one injured, and property damaged to the amount of about \$2,000.

A tube ruptured January 30th, 1914, in a water tube boiler at the plant of the Union Specialty Machine Co., Chicago, Illinois. One man was killed.

A boiler exploded February 5th, 1914, at the sawmill of Thomas Hayer near Urban, Kentucky. Six men were instantly killed and many others were injured, some perhaps fatally.

A traction engine used on road work near Howenstine, Ohio, was wrecked February 5th, 1914, by the explosion of its boiler. Three men were injured, one of them fatally, while there was some doubt expressed as to whether one of the others could recover.

A public school was destroyed by fire February 12th, 1914, at Hoboken, New Jersey. The fire originated from the explosion of the heating boiler.

A heating boiler exploded March 5th, 1914, at the home of R. H. Cook, Detroit, Michigan. The heater was projected upwards through two floors, doing considerable property damage.

On March 17th, 1914, a blow-off pipe failed at the plant of the Ruby Lumber Co., Madisonville, Kentucky. Three men were injured, one of them fatally.

A contractor's boiler exploded March 19th, 1914, near Tiltonville, Ohio, resulting in the injuring of six men, three fatally. The men were engaged in the construction of a smelter.

A boiler explosion on April 3rd, 1914, at the summer home of Mrs. Jessica Taylor, Cedarhurst, L. I., resulted in a fire which destroyed the building. The property loss was estimated at \$250,000.

During the past two years the department has not only been self-sustaining, but has produced a revenue for the state, over all expenses, of \$15,700.50.

FINANCIAL STATEMENT COVERING TWO YEAR PERIOD ENDED  
NOVEMBER 30TH, 1914.

RECEIPTS.

From Appropriations—	
For salaries and expenses, two years.....	\$30,600.00
From Office Receipts—	
License fees, 1913 .....	\$ 9,181.50
License fees, 1914 .....	8,009.00
Boiler Inspection fees, 1913 .....	15,260.00
Boiler Inspection fees, 1914 .....	13,250.00
	<hr/>
	\$45,700.50
Total .....	<hr/>
	\$76,300.50

DISBURSEMENTS.

Salaries and expenses .....	\$30,000.00
Balance of appropriation unexpended .....	600.00
	<hr/>
	\$30,600.00
Amount paid into State Treasury .....	45,700.50
	<hr/>
Total .....	\$76,300.50
Receipts of office .....	\$45,700.50
Expenses of office .....	30,000.00
	<hr/>
Surplus .....	\$15,700.50

In addition to the above there were one hundred and forty-six boilers inspected. The fees for such inspections, amounting to \$925.00, had not been paid on November 30th last. Adding this amount to the work paid for would increase the surplus of the office to \$16,625.50.

The number of boilers examined internally and externally was 4,301. In these inspections 5,695 defects were noted, 2,917 of which were considered dangerous, and suitable repairs were ordered made. Thirty-one boilers were condemned as unfit for further use and the pressure was reduced on 145 boilers. The following is a classified list of defects noted:

Nature of Defect—	Noted		Dangerous	
	1913	1914	1913	1914
Cases of incrustation and scale .....	405	300	230	87
Cases of internal corrosion and pitting .....	82	53	70	30
Cases of external corrosion and pitting.....	25	15	25	15
Broken stays and braces .....	36	20	36	20
Loose and defective stays and braces.....	32	19	32	19
Furnaces defective .....	82	35	45	37
Cracked plates .....	22	11	22	11
Crystallized plates .....	24	9	24	9
Bagged plates .....	19	14	19	14
Defective rivets .....	202	82	170	39
Leaky tubes .....	1,737	1,500	681	463
Defective setting of water columns .....	20	12	20	12
Defective blow-offs .....	10	5	10	5
Safety valves overloaded .....	100	47	100	47
Defective safety valves .....	22	28	22	28
Cut-off between safety valve and boiler.....	0	0	0	0
Defective pressure gauges .....	302	280	260	214
Defective steam pipes and connections.....	80	63	52	47
Total .....	3,202	2,493	1,820	1,097

In concluding this report it gives me pleasure to express my thanks to Mr. Stephen Parker, Mr. Richard Moran and Mr. R. A. Prater, the assistant inspectors, and to Mr. Roy Sieger, clerk, for the able manner which they have performed their duties. Each of these men has worked willingly, intelligently and well, and at all times has been prompt to respond to any calls made upon him. For the many courtesies extended to myself and the assistant inspectors, and for the aid given in enabling us to perform our duties quickly, I desire, also, to thank the owners and operators of steam plants and the engineers in charge.

Respectfully submitted,

PERCY L. BROWN,  
State Boiler Inspector.

# INDEX

THE INDEX IS A LIST OF THE NAMES OF THE AUTHORS OF THE ARTICLES IN THE JOURNAL, AND OF THE SUBJECTS OF THE ARTICLES.

It is arranged in two columns, the left column containing the names of the authors, and the right column containing the subjects of the articles. The names of the authors are arranged in alphabetical order, and the subjects of the articles are arranged in alphabetical order. The index is a valuable aid to the reader, and is a necessary part of every journal.

---

---

## INDEX

---

---

The index is a list of the names of the authors of the articles in the journal, and of the subjects of the articles. It is arranged in two columns, the left column containing the names of the authors, and the right column containing the subjects of the articles. The names of the authors are arranged in alphabetical order, and the subjects of the articles are arranged in alphabetical order. The index is a valuable aid to the reader, and is a necessary part of every journal.



# INDEX

## Report of Commissioner of Labor and Industry

	Page
Accidents on railroads in Montana, statistics of.....	192
Alfalfa products mills .....	114
Artificial ice industry .....	115
Assessment of property by county, statistics of.....	215
Bakers in Butte, strike of .....	22
Banks in Montana, statistics of .....	227
Beet sugar industry .....	111
Bottling works, statistics of .....	123
Bounties on wild animals, statistics of .....	143
Bozeman free employment office, statistics of .....	56
Breweries .....	110
Breweries, statistics of .....	122
Brewers in Bozeman, strike of .....	21
Brick and clay factories, statistics of .....	132
Building permits, statistics of .....	228
Butte, Anaconda & Pacific Ry., statistics of .....	188
Butte district, pay rolls of .....	47
Butte free employment office, statistics of .....	55
Butte miners, revolt of .....	24-34
Butte Mine Workers' union, attempts to assert jurisdiction.....	29
Butte Mine Workers' union, rules and regulations posted.....	30
Butter creameries, statistics of .....	131
Butter and cheese factories .....	113
Candy factories, statistics of .....	135
Carpenters in Helena, demands made by .....	22
Cattle, assessed valuation for 1913, statistics of .....	216
Cattle shipments, statistics of .....	237
Causes of Butte revolt .....	25
Cement manufacture .....	114
Cheese factories, statistics of .....	132
Chicago, Burlington & Quincy Ry., statistics of .....	186
Chicago, Milwaukee & St. Paul Ry., statistics of.....	185
Child labor, conditions of .....	46
Child labor law, general observance of .....	38
Child labor law, recommendations relating to .....	15
Cigar manufacturers, statistics of .....	136-137
Coal and wood, statistics of prices of .....	87
Comparative statistics of prices of food commodities .....	88-96
Cost of living .....	61-96
County officials, directory of .....	273-276
Dairy products, annual importation of in Montana .....	158
Department of labor and industry, organization of .....	5

	Page
Directory—of congressional delegation .....	259
of county officials .....	273-276
of district judges .....	272
of members of House .....	260-261
of members of Senate .....	260
of state officials .....	259-271
of United States officials .....	259
Drug manufactures, statistics of .....	130
Eight-hour mining law, violation of .....	38
Eight-hour law on public works—	
complaints at Havre .....	38
violation of .....	38
violation of at Harlowton .....	39
violation of at Helena .....	39
violation of at Lewistown .....	39
violation of at Roundup .....	39
Election returns .....	253-258
Electrical workers on Milwaukee Ry., strike of .....	21
Electricians on Milwaukee Ry., strike of .....	23
Elevators, statistics of grain .....	229-231
Employment offices, statistics of free .....	54-58
Farm labor, conditions of .....	45
Feed, alfalfa and cereal mills, statistics of .....	125
Fire insurance, statistics of .....	226
Fire losses in Montana, statistics of .....	239
First disturbance in Butte .....	26
Flour mills .....	111
Flour mills, statistics of .....	124
Food commodities—	
comparative statistics of prices .....	88-96
statistics of retail prices .....	66-85
statistics of wholesale prices .....	86
Foundries, repair and machine shops .....	112
Foundries, repair and machine shops, statistics of .....	127
Fraternal societies, statistics of insurance .....	225
Free employment offices, recommendations relating to .....	14
Fur industry .....	141-143
Gallatin Valley Ry. Co., statistics of .....	189
General statistics .....	215-276
General working conditions .....	43
Grain elevators in Montana, statistics of .....	229-231
Great Northern Ry., statistics of .....	184
Hogs, etc., assessed valuation for 1913 .....	219
Home markets .....	157
Horses, assessed valuation for 1913 .....	218
Hydro-electric development .....	99-106
Individual power plants .....	101

	Page
Insane—	
movement of population for 1913 and 1914.....	246
State Hospital for, statistics for 1913 .....	245
State Hospital for, statistics for 1914 .....	247
I. W. W. agitation .....	21
Jail Incarcerations—	
statistics for 1912 .....	240
statistics for 1913 .....	241
Jewelers in Butte, strike of .....	21
Labor and industry, organization of department of .....	5
Labor conditions, report to Governor, January, 1914 .....	7
Labor disturbances .....	21-34
Labor laws, violations of .....	37-39
Law compelling reports, recommendations relating to .....	15
Legislation recommended .....	13-18
Legislature, directory of members .....	260-261
Letter of transmittal .....	5-10
Life insurance, statistics of .....	226
Live stock importations, statistics for 1913 .....	238
Livingston free employment office, statistics of .....	57
Logging concerns, statistics of .....	120
Losses by fire, statistics of .....	239
Marriages and divorces, statistics for 1912 and 1913.....	222
Martial law suspended in Butte .....	34
Mayor of Butte attacked .....	29
Meat, annual consumption of, in Montana .....	158
Meat, annual consumption of, in United States .....	158
Meat packing and slaughtering plants .....	113
Meat packing and slaughtering plants, statistics .....	133
Meat products, annual importation in Montana .....	158
Militia ordered out in Butte .....	32
Miscellaneous industries .....	117
Miscellaneous industries, statistics of .....	138
Missoula free employment office, statistics of .....	58
Montana manufactures .....	109-138
Montana markets .....	157-159
Montana, Wyoming & Southern Ry. Co., statistics of .....	191
Monumental works, statistics of .....	130
National guard of Montana, statistics of .....	244
Nationality of employes, statistics of .....	195-212
employes of Butte mining district, statistics of.....	206
employes of coal mines, statistics of .....	208
employes of express companies, statistics of .....	212
employes of manufacturing industries, statistics of .....	209
employes of quartz mines outside Butte district, statistics.....	207
employes of railroads, statistics of .....	195-205
employes of telephone & telegraph companies, statistics.....	210
employes of water & light companies, statistics of .....	211
Naturalizations, statistics for 1912 .....	220

	Page
Naturalizations, statistics for 1913 .....	221
Newsboys' riot in Butte .....	22
Nine-hour law for women, violations of .....	37
Northern Pacific Ry. Co., statistics of .....	183
Nurseries and greenhouses .....	112
Nurseries and greenhouses, statistics of .....	129
Occupational disease law, recommendations relating to .....	15
Opinions of attorney general .....	175-179
Oregon Shortline Ry. Co., statistics of .....	187
Organized wage earners, statistics of .....	49
Other industries .....	116
Passengers carried by railroads in Montana during 1913.....	191
Pay rolls of Butte district .....	47
Penitentiary statistics for 1912 .....	242
Penitentiary statistics for 1913 .....	243
Pickling industry .....	116
Planing mills, statistics of .....	121
Plumbers, suspension of charter in Butte .....	22
Population of Montana—	
composition and characteristics .....	163-167
birthplace .....	165-167
color, nativity and parentage .....	164
Poultry, annual importation in Montana .....	158
Power plants in Montana, capacity and horsepower .....	101
Printing industry, statistics of .....	50-51
Prospective Montana industries .....	147-153
canning factories .....	153
oil and gas wells .....	149
potato products, utilization of .....	150
pulp and paper mills .....	147-149
Railroads in Montana, statistics of .....	183-192
Recommendations for legislation .....	13-18
relating to child labor law .....	15
relating to free employment offices .....	14
relating to workmen's compensation .....	16
Report to governor on labor conditions, January, 1914.....	7
Retail prices of food commodities, statistics of .....	66-85
Revenue from licenses for 1912 .....	232-233
Revenue from licenses for 1913 .....	234-235
Road and bridge levy, statistics for 1913 .....	172
Road building by state convicts .....	171-172
Safety First movement .....	43
Saloons in Montana, statistics of .....	236
Saw mill and timber industry .....	109
Saw mills, statistics of .....	118-119
Schools in Montana, statistics of .....	224
Second outbreak in Butte .....	27
Sheep and wool output of United States, statistics for 1913.....	248-249

	Page.
Sheep and wool output of world, statistics for 1913 .....	250-252
Sheep, assessed valuation for 1913 .....	217
Sheepherders and farm hands, wages of .....	52
Smelters and reduction plants .....	111
Smelters and reduction plants, statistics of .....	126
State officials, directory of .....	259-271
Steam and power laundries .....	112
Steam and power laundries, statistics of .....	134
Steam bakeries .....	114
Steam bakeries, statistics of .....	128-129
Strikes and labor disturbances .....	21-34
Suburban homes for working people .....	44
Sun River distillery .....	116
Teamsters' walkout in Helena .....	22
Tuberculosis, statistics of deaths in Silver Bow county .....	223
Union labor, employers' attitude regarding .....	33
United States officials, directory of .....	259
Unorganized wage earners, statistics of .....	53
Wage payments, recommendations relating to .....	13
Western Federation of Miners .....	24
White Sulphur Springs & Yellowstone Park Ry. Co., statistics.....	190
Wholesale prices of food commodities, statistics of .....	86
Woman's nine-hour law, cases of violation prosecuted .....	37
Wood and coal, statistics of prices .....	87
Working conditions .....	43-58
Workmen's compensation, recommendations relating to.....	16

# INDEX

## Report of State Inspector of Quartz Mines

	Page.
Accidents, rules for prevention .....	284-288
Accidents, statistics of fatal and non-fatal.....	291-296
Connections with other mines .....	283
Electric power utilized .....	283
Fatal accidents, statistics .....	291-293-295
Inspection of mines, etc., statistics .....	297
Laws, synopsis of mining .....	289-290
Mineral output of Montana, statistics .....	298
Mineral production of Montana for 1913.....	279
Mining laws of Montana, synopsis .....	289-290
Mines operating, by counties .....	299-316
Non-fatal accidents, statistics .....	292-294-296
Prevention of accidents, rules .....	284-288
Production of metals, statistics .....	298
Ram water liner drills installed .....	282
Recommendations made by mine inspector, tabulation .....	291
Recommendations for revision of mining laws .....	280
Report of Deputy Inspector on Silver Bow county mines.....	308-316
Revision of mining laws, recommendations .....	280
Rules for prevention of accidents .....	284-288
Synopsis of mining laws of Montana .....	289-290
Telephones installed .....	282
Temperature of mines .....	284
Ventilation of mines .....	283
Zinc production .....	281

## INDEX

## Report of State Coal Mine Inspector

	Page
Accidents in coal mines, statistics .....	322-325
Examinations, statistics .....	321
First aid to the injured .....	320
Production of coal, statistics 1901-1914 .....	320
Production of coal, statistics of various properties .....	326-329
Stoppings .....	319
Summary of statistics on coal mines .....	331
Tonnage and value of coal, statistics .....	330
Ventilation .....	320

## INDEX

## Report of State Boiler Inspector

	Page.
Defects, classified list .....	340
Explosions of boilers in United States .....	336-338
Financial statement of boiler inspector .....	339
Inspections of boilers .....	339









MONTANA STATE LIBRARY EXTENSION COMMISSION  
SOUTH AVENUE AND MIDDLESEX  
MISSOULA, MONTANA

